Clinical Lecture
ON THE
INFLUENCE OF RENAL DISEASE ON THE CHOICE OF OPERATION FOR STONE IN THE BLADDER.

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GENTLEMEN,—During the last ten weeks of the year 1872 eight cases of stone in the bladder were admitted to my wards. Of these, seven were adults, chiefly of advanced age; lithotrity was performed for all, and each patient has been discharged cured. The eighth case was that of a lad aged ten years; for him I performed lithotomy, and he also went out well. Towards the end of January I returned to my duties here, and found a case just admitted, which possesses characters of considerable interest. I propose therefore to make it the subject of this lecture.

The man was sixty years of age. His first calculous symptoms appeared nearly three years ago. He was admitted to a hospital last summer with a rather large phosphatic stone, for which lithotrity was performed. He left relieved, but passed portions of phosphatic matter occasionally, obliging him to use a catheter sometimes to remove them. His bladder was in that condition in which phosphates are rapidly formed.

Present state (Jan. 24). — Passing urine every half-hour day and night, with much straining and great pain; compelled always to leave his bed for the purpose. Urine pale, turbid, alkaline; specific gravity 1009; a granular cast found at first examination. General condition extremely feeble.

You will remember that I made long clinical remarks in the ward, stating that the patient was the subject of chronic renal disease, discussing the influence this condition must have on the course to be pursued, were there a stone in the bladder; and that I should make a careful attempt to remove any fragment or phosphatic matter which might be the cause of his sufferings. I did so, taking away a small quantity of this without difficulty. On Jan. 26th he had passed a little débris, and the intervals of micturition were prolonged. On the 28th I removed one very small piece. On the 31st I made another short examination, discovering nothing. That afternoon, contrary to orders and in the absence of the nurse, he went out of doors into the cold air in the yard. On February 2nd he had a rigor, temperature rising to 103°. On the 3rd another. On the 4th he was drowsy and incoherent. I ordered hot linseed poultices sprinkled with mustard to be applied frequently to the loins. Pulse was about 100; temperature 100°; urine but little diminished in quantity. This condition continued about two days, when he was much less sleepy, his intelligence returned, the tongue (which had been loaded) began to clean, and he took food very fairly. We had quite given him up, as you know, on the 4th, and now began to hope he would rally for a time. But on the 8th and 9th he was not so well; the urine acquired a marked blood-tint. Hot poultices to the loins were followed by manifest improvement on the 11th and 12th. On the 13th the urine was again worse, the patient weaker and indisposed to take food. On the 17th the drowsiness and incoherence reappeared; temperature was below natural; pulse weaker; urine more bloody. He gradually sank, dying in the evening of the 19th.

At the autopsy we found conditions of which the following is a very brief *résumé*:—Bladder thickened; grey discoloration of mucous lining; patches of false membrane adhering. Very marked bar across its neck uniting lateral lobes of prostate; deep pouch behind, containing a few small phosphatic concretions, weighing 12 grains. Ureters somewhat dilated; the left more so than the right. Kidneys surrounded by fat, vascular and indurated, attached to the capsule, which peeled off with renal substance adhering, and opened tiny abscesses. Surface lobulated, minutely granular. Size normal, as if of granular contracted kidney temporarily enlarged by inflammatory action. Surface of right greatly congested, hæmorrhage in places; left less so. Cortical portion in both thin; in left particularly so. Section brownish, with small, pale, yellowish spots interspersed; the pyramids intensely congested. The pelves dilated; lining membrane deeply injected throughout. Mr. Beck made microscopic sections subsequently, and reports that the tubules were seen in some parts filled with granular epithelium. The Malphigian bodies were surrounded by crowds of young cells resembling corpuscles. On microscopic examination of a section of the kidney hardened in alcohol, the tubules of the cortical part were found to be irregular in size; some dilated, some narrowed. In the dilated tubules the epithelium was granular, the cells being shrunken and atrophied. The epithelium had entirely disappeared in some tubules, and the lumen was filled with granular débris. Between them, in all parts of the kidney, were crowds of young cells. Around the Malphigian bodies these were accumulated five or six deep. In some parts in the immediate neighbourhood of the small abscesses the structure of the kidney was undistinguishable, and its place occupied by masses of young rounded cells.

For this poor fellow the only question to be entertained was how best to relieve or palliate the painful complications of his fatal malady: advanced Bright's disease, the one; diseased bladder, containing phosphatic matter, the other. It was no question of cure, nor could there be any prospect of it. His stone had been previously removed; but the decomposed urine and mucus together were daily forming phosphatic deposits, which, cohering and drifting into the urethra, occasioned intense pain. Such a subject is only one of several which are naturally suggested by the case before us. I shall, therefore, take the opportunity of discussing briefly a large theme arising out of this, which may be thus stated.

When stone in the bladder coexists with any disease of the kidney, how does this influence the decision in regard to operative proceedings for the former?

1. I must first define what is to be understood here by the term "disease of the kidney." It is a comprehensive one, and is apt to be employed somewhat loosely. It embraces, of course, all the morbid affections to which the kidney is liable. These I shall endeavour to classify in a broad and general way; and in doing so will put aside, as obviously foreign to the subject in relation to operative measures, the malignant diseases of the organ.

(*a*) Those chronic changes in the kidney structure associated with constitutional cachexia, of which they may be more a local expression than a cause, and which are comprehended under the term "Bright's disease," form an important proportion of the maladies in question. In the dead-house you know that we meet with kidneys differing very much in appearance, size, and structural characters, all yet furnishing examples of different kinds of Bright's kidney, or, in some cases, of different stages of the same kind of disease. Most are included under the distinct types of "the granular contracted kidney," like that of our patient, and "the large, smooth, white kidney." Not to overlook a much more rare condition, I just name the "lardaceous" or so-called "amyloid" degeneration. Now the symptoms which denote Bright's disease are, for the most part, sufficiently clear and distinct during life, as you know; and the amount or stage of disease is, within certain limits, fairly calculable after some knowledge of the patient.

(*b*) Another kind of change which is wholly distinct from the foregoing occurs in kidneys which are either frequently or for a considerable time the seat of calculus.

The presence of minute foreign bodies, for the most part aggregations of uric-acid crystals, in the uriniferous tubes, at their orifices and around them, in the calices, is a cause of injury to the structure affected in a degree corresponding to the duration and the magnitude of the deposited matter. Any degree of injury, from a circumscribed and temporary inflammation of the lining membrane of the pelvis caused by a large quantity of rapidly formed crystals, up to almost entire destruction of the organ from the presence of a large renal calculus, may be observed. Happily, the latter condition is rare. On the other hand, the former is very

common. I doubt whether any man passes much concrete uric acid for a few months without some little damage to the kidney. Certainly, during the process blood is almost always to be found in the urine by the microscope; and it must be inferred that when the habit of passing periodically uric-acid calculi has existed for some years, a certain degree of permanent deterioration has been suffered by the kidneys. There are no other special signs of this condition. The patient's general health is often very good. There is no cachexia as in the class of diseases (morbus Brightii) just referred to. On the contrary, the patient is often hale and hearty in appearance. The characters of the urine are good; quantity abundant; specific gravity full average; no albumen, but urates often in excess, and blood-discs are present, insufficient to affect the naked-eye tint of the urine. Pain about the renal and sacral regions and the hips often complained of. But I have frequently remarked to you that such patients often exhibit considerable febrile phenomena on instrumental interference, and that, although they look so well, more than ordinary caution is necessary in dealing with their calculi.

(*c*) I name, without further allusion to it here, saccharine diabetes, which cannot be passed over while considering renal diseases. To save returning to the subject, let me say that there is no question that for this and the preceding class, in which patients with vesical calculus are usually elderly, lithotrity is certainly preferable to lithotomy, unless the stone is large. The exercise of caution on the part of the operator to employ instruments as little and as gently as possible is essential. I have operated on two patients with success who were the subjects of marked saccharine diabetes, one of them within the last month; both were very sensitive to mechanical interference. A large number of elderly people with uric-acid calculus possess renal organs which have been subject more or less to prolonged irritation produced by the formation of small renal calculi; and when the degree is considerable, all operations on the bladder are more hazardous in consequence.

(*d*) The last class of renal changes which I have to consider are those resulting from diseases which habitually obstruct the outflow of urine. This affection also is not uncommon, and has an intimate relation to our subject.

Many years ago I described the process by which these changes occur. The principal conditions which originate them are, stricture of the urethra, enlargement of the prostate, large vesical calculus, and, less commonly, atony of the bladder. The order of enumeration is also the order of numerical frequency as a cause. Stricture always constitutes an obstruction to the outflow of urine commensurate with the degree of the narrowing. Considerable prostatic enlargement is a cause also, but notably less powerful than the preceding. Vesical calculus sometimes acts in the same way, but by no means as a rule; on the contrary, it is an exceptional circumstance when it does so, depending on certain conditions which vary with the individual, such as the habitual position it occupies in the bladder, its size, its liability to roll to the neck, &c.

This, however, is certain, that in cases of long-standing calculus, an autopsy will sometimes show only slight signs of renal changes produced by obstruction, while in another case those changes will be remarkable for their extent and degree. In no instance, be it remarked, do such changes occur apart from obstructed micturition in some form, and always of long standing.

The changes I refer to are dilatation of all the urinary passages behind the point of obstruction. Thus, in stricture of the urethra, we may observe dilatation of the urethra itself and its glands, protrusion of the mucous lining of the bladder through the interlacing fibres of the muscular coat, producing sacculi, dilatation of the ureters, of the pelvis of the kidney, of the proper renal structure, and thinning by pressure of the renal substance itself; so that the organ has the appearance of a series of cysts, which formerly was really supposed to be its pathological condition. I may refer to a work published in 1854, where the details were given by me with considerable minuteness of the changes which occur through the influence of fluid pressure.* Let us consider for a moment the mechanical process by which this remarkable series of changes is effected. You know that hydraulic pressure is equal in every direction. Thus, if I make pressure on a flexible bag filled with fluid, that pressure is exerted equally at every point of the periphery; and if tubes are inserted, say in a vertical position at opposite sides, the fluid will rise and issue with equal force from each. Now, what happens in the flexible bag which constitutes the human bladder when obstruction exists in the form of stricture, enlarged prostate, or calculus? More force than natural is of course exerted to accomplish the act of micturition; the patient "strains," as he says, to pass his water, and sometimes, if the obstruction is considerable, the force exerted is very great. You see at once that this tells not only in the anterior direction upon the obstruction itself, but also on the ureters which enter the bladder from the kidney behind. Let us say that the ordinary pressure required to pass water in the healthy organs is one pound to the square inch (one number being, for the sake of illustration, as good as another), when obstruction is present the pressure may certainly be increased two, three, five times, or more. Further, the act of relieving the bladder, instead of occurring only five times in the twenty-four hours, and being speedily completed, may recur ten or twenty times, and the duration of the act may be greatly increased also. It is not necessary to explain to you how this state of things must act, and how that after a time (for the mouths of the ureters, not being so patent as the inner orifice of the urethra, do not easily yield to pressure) every act of straining tells on the passages, and dilatation advances by degrees until at last even the kidney suffers from the continued pressure and from the inflammatory process which necessarily accompanies it; for the ureters and pelves of the kidney may become supplementary reservoirs to the bladder, and are sometimes found filled with decomposed and ammoniacal urine. Long before this stage arrives inflammatory action invades these parts, a condition recognised, as you know, as pyelitis [diagram of dilated organs made]. By some this condition has been called "surgical kidney," a phrase which others have applied to denote the acute suppurative nephritis which sometimes closes the scene for a patient who has long had renal disease. I was glad to find Dr. Dickinson proposing at the Medico-Chirurgical Society to abolish so unphilosophical a term. It is one I never use and have a strong objection to. Why "surgical" kidney indeed? Certainly in one sense only—namely, that it is for want of surgical aid that the organs have come to the state in which they are. If that aid were rendered early in the history of the case, whether it be stricture or stone, no such condition would ever arise. Never was the proverb truer that "a stitch in time saves nine"—a surgical stitch, you understand. The pathological condition thus attained might well be termed "mechanical dilatation" of the ureter and kidney, as being mainly, although not entirely perhaps, produced by the physical process described.

Let me now inquire what are the symptoms which it produces during life? I know of none which are distinct and significant. I made this, I had almost said, humiliating admission, nearly three years ago at the Royal Medical and Chirurgical Society, laying much stress on the fact for the express purpose of inviting attention to it.* I have long sought for some sign that should indicate the presence of extensive pyelitis and dilatation, but in vain. Such a patient presents no sign of change in the urine itself. It is of full specific gravity, abundant in quantity, without albumen, except that which the presence of pus and blood accounts for, and such pus and blood are commonly found as vesical products formed by irritation from the calculus

* Stricture of the Urethra, first edition, pp. 64-70.

* Referring to it I said:—"It must be admitted that at present we have not an unfailing means of ascertaining the existence during life of these conditions. There may be no albumen in the urine, and not necessarily are there any deposits significant of the renal affection. The urine of a calculous patient frequently contains mucus, pus, and blood; but whether the origin of these is in the bladder (naturally its most common source from the irritation of the calculus) or in the organs above, it is impossible always to determine; and usually there are no casts or other pathognomonic signs of disorganising renal structure. In fact, neither physical signs nor subjective symptoms are by any means frequently present, and yet advanced pyelitis, and even sometimes chronic nephritis, may exist. ..... Could the existence of these conditions be accurately diagnosed beforehand, it might become a question whether the crushing operation, or any operation at all, should be performed. For there is little doubt that the existence of such organic changes is almost as surely a source of fatal issue in lithotomy as in lithotrity. Now, in the twelve cases before us, one or other of these conditions certainly existed in five; and had it been possible to be aware of them the operation might not have been performed, and the patient might have lived a little longer, with much suffering it is true, and he ultimately must have died at no distant period."—*Royal Medical and Chirurgical Transactions*, vol. liii., p. 136-7, 1870.

in cases where no renal disease exists. Whenever you have stone of more than small size you may have such products, and we are bound to expect them if the patient has any symptoms of cystitis, and some cystitis is always present in these cases of dilatation. Again, there is nothing which we can identify as disintegrated portions of renal tissue—no casts of tubes, nothing but pus and blood-discs—nothing, in short, distinctive. Then at no stage of the disease is there any dropsical effusion, no habitual dryness of the skin, not necessarily any marked feverish state, constant or intermitting. Nor is there any diminution of weight; on the contrary, the patient may have gradually acquired fat. But he is always, if the condition is advanced, in feeble health, is worn, and easily exhausted—signs which impress you with nothing so much as his obvious inability to bear any severe test of his physical powers, from all of which, however, nothing absolutely diagnostic can be inferred.

But it has been said, and with some plausibility, if the kidney is much damaged by disease, the urine will certainly show a deficiency of urea. Practically that is not so. Practically, with much pyelitis and dilatation, urea is sufficiently eliminated. Two half-kidneys, to speak roughly, will probably do the necessary elimination for the system in circumstances of quiescence, just as two half-lungs may suffice for a patient in very favourable circumstances; and failure to excrete urea is only manifest when the action of those two moieties of kidney is suddenly interfered with, by disturbance from external cold, &c., or by the inflammation propagated by means of an operation on the urethra or bladder. Practically, again, if I examine the urine of a patient in order to determine the amount of urea, and find it manifestly insufficient, is it not the fact that my patient must at that moment be to some extent in a condition of uræmic poisoning, and that he will certainly show some clinical sign thereof? Is not the fact that no such sign is present the only real proof that urea is sufficiently eliminated? Once the urinary constituents begin to be retained in the blood, the moment is at hand when symptoms of poisoning will appear. The chemical test alone must not be relied on in practice. When a patient passes abundance of urine of specific gravity 1018 to 1025, without casts, with no albumen except that which is due to the blood and pus found in the secretion, we have no ground for believing that any advanced organic renal disease exists, unless we obtain evidence of its presence from other sources.

Now, I never operate for stone without first ascertaining whether the condition of the urine is that above described; so that if I undertake an operation for a patient manifestly the subject of renal disease, it is in full view of that fact, and because it may be absolutely necessary that surgical relief must be attempted at all hazards. Of this I have to speak by-and-by. No one would be more ready than myself to obtain further aid from chemical tests. I only fear that none are known which can aid us to demonstrate the presence of the mechanical dilatation to which I have referred.

Again, it has been said, Can you not by palpation or percussion demonstrate the existence of this disease? I answer for myself distinctly "No." A foreign authority demanding the utmost respect has recently affirmed that it is possible. With great deference, and after giving much special attention to the matter for some years, I emphasise my dissent on this point. I have long recognised this condition as one of the great stumblingblocks, perhaps the greatest now existing, in our way to diminish the mortality after operations for vesical calculi of large size. Had I any means of certainly ascertaining that a patient *with such a stone* had ureters and kidneys largely dilated, I would advise him not to submit to any operation, and I would do all I could to prolong his life and make it tolerable—a condition within certain narrow limits to be attained. Something may be done under these circumstances to accomplish this end—more, perhaps, than is often believed, of which I have seen some remarkable instances; but sometimes, it must be confessed, such palliative measures are useless, and the patient demands relief from sufferings which are intolerable, no matter what the risk may be. Can we under such circumstances humanely refuse him?

To return however: let us inquire what we can accomplish by palpation or percussion. First, I have determined the fact beyond all question, that there is by no means necessarily much, if any, tenderness in the regions of the ureter and kidney—that is, acute suppuration, active inflammation, or renal calculus not being present. You are accustomed to see how often I examine those regions in the wards. And you know how efficiently one may do it with a patient who is thin and spare; and also how particularly unsatisfactory is the examination when the patient is corpulent. Now the former condition is one you can by no means always reckon upon; on the contrary, I affirm that the latter condition must be more commonly expected in these cases. For a year or two, perhaps, the patients have been inactive, and fat has accumulated; and then you can learn little about the ureters by palpation. Again, the condition of the organs, even in the spare subject, offers no objective sign to physical examination. Let us suppose a ureter as big as the aorta, or larger still: is it a tube filled with air like an intestine which will give you a corresponding note? Is it filled with fluid, and will it thus give you a line of dulness which may be traced? By no means; it is a flaccid sheath with thin yielding walls, transmitting fluid it is true, but you can no more isolate it by percussion from the adjacent structures, so as to demonstrate its size, than you can isolate by a similar process—let me say, the lumbar plexus. Of the kidney itself the same thing must be affirmed. You may, if fairly practised, determine the solid mass of an enlarged kidney; but there is no way of demonstrating the existence of a dilated pelvis or of thinned kidney structure by any physical examination. No doubt you may guess—shrewdly perhaps sometimes; but it is no place or time for guessing when life or death hangs on the decision. There is a field here for further research; the door is open for investigation. For, you may rely on it, no method of arriving at anything like a certain diagnosis of pyelitis with mechanical distension is at present known.

2. But I have now to consider what influence ascertained disease of the kidney exercises on the prognosis, when the subject of it has also a stone in the bladder, and the question of operating for its removal has to be considered. Let me first say that when the stone is small—the size of a small nut,—whatever the condition of the kidneys, there is no very great risk from lithotrity if well performed. But it is by no means always that we are so fortunate as to find the patient with a small stone. It may be large, and do what you will the patient is in a position of danger; the only question for us is—by what treatment will that danger be least?

I have operated certainly in three cases in which advanced Bright's disease was known to be present, but in which the sufferings of the patient were so great that an operation was most desirable. In each the stone was phosphatic; in the first and second it was large, in the third of medium size.*

The first was a gentleman whom I saw with Dr. Sharpe, of Norwood, in 1865. With extreme care I removed the whole in eight sittings, with great relief to the patient. His urine, although fairly clear, was of low specific gravity, and charged with albumen. The subsequent part of his life—I believe about six or nine months—was rendered comparatively comfortable. The second case was in this hospital in 1870. He was also handled with the utmost caution, having five sittings in ten weeks, owing to the severe rigors and prolonged fever which followed some of them; but he went out marvellously improved, and lost all his calculous symptoms. I saw him three months after, and he fully maintained all he had gained. I have heard nothing since.

The last of the three occurred about the same time, also in the hospital. His disease was more advanced than that of the preceding case. Only on his very urgent solicitation I consented to try lithotrity. I could not resist the appeal to diminish his suffering if possible; that he must die at no distant time both he and I knew. With his pallor, debility, and uniformly rapid pulse, lithotomy could not be thought of for an instant. I kept him three weeks before touching him, in the hope of improving his condition. Five sittings sufficed to remove nearly all the stone; but the last was followed by severe shivering and vomiting, and death in a few days.

Should I have done lithotomy in any of those cases? I answer unhesitatingly, in not one of them was it possible to submit, with any chance of success, men in such a feeble state to any severe cutting operation. Nothing but litho-

* By "medium size" I intend always a stone which measures about an inch as the mean of its two diameters.

trity could offer the slightest chance, and it saved two of them from the anguish of stone, and from the additional proclivity to death which it entailed.

But these, you say, were examples of known "morbus Brightii," and you naturally enough demand if I should be guided by the same principle in a case of mechanical dilatation and pyelitis if I knew beforehand that I had to deal with such a one? To this I can only say that the patients whom I have seen, and whose autopsies have demonstrated that they were the subjects of that condition, have been manifestly defective in vital power—patients for whom I should certainly shun a cutting operation of any kind if possible. Although, as I said on another occasion, had we the means of identifying an advanced example, I should gladly avoid either lithotomy or lithotrity, still I believe that I have employed the latter with success for a few. I have thus operated three times in cases of bad old-standing stricture of the urethra (maintaining the urethra well dilated by a catheter permanently tied in for the purpose, as you have seen), in which I have no doubt that considerable mechanical distension of all the passages existed. But these people were so miserably feeble that nothing would have induced me to cut them, nor do I think that any man would have ventured to do so.

But you might still rejoin, and you would be quite right in doing so, Surely it has been said by surgeons of experience in the past, that when "renal disease" exists, it is better to remove the stone by one operation, although severe, than to attempt it by a process which requires repeated introductions of a lithotrite, and more or less continued irritation from fragments? The fitting reply today, as it appears to me, is, that although this was undoubtedly true some thirty years ago, it is by no means necessarily true now, when the relative capabilities of the two operations of cutting and crushing have so greatly changed. The operation of lithotomy had arrived at its present perfection before lithotrity was invented. No results more perfect than had then been attained by its means have ever been accomplished by it since. On the other hand, the perfecting of lithotrity has been a progressive process from fifty years ago to this very day. The lithotrity of to-day is a better and safer proceeding than that of twenty or of ten years ago, and thus it is that the axiom about renal disease, right as it might have be then, has been growing less so year by year. *I believe it is reversed for stones which may be easily crushed.* In support of this conviction I have called before you six unimpeachable witnesses—I might easily have called more,—six patients who could not have been cut. To have placed those feeble and pallid frames on an operating table for lithotomy would have been to slaughter them outright. Of those six, five were saved. I believe, then, that for any stone of rather large size, *provided it is friable*—and calculi in these cases are mostly phosphatic, and therefore friable,—in a patient of broken health from advanced renal disease, if any chance exists from operation at all, it will be by lithotrity; and that in such a case lithotomy will be surely fatal. The choice in a bad case is lithotrity or palliative treatment; with a stone not easily crushed, it is lithotomy or palliative treatment, probably the latter.

But then it is impossible to overlook one condition, and it would be useless affectation to do so. I mean by lithotrity an operation carefully done by an experienced hand. Rather than have it done in any other fashion, let lithotomy be selected by all means. It is impossible to compare these two operations as we do some others—as we can, for example, any two modes of amputating a limb. Nor may we blink the fact that, while the lithotomy practice of one good surgeon may not differ greatly in the long-run from that of another, it is impossible to deny that the lithotrity of the two may be wide as the poles asunder in its quality as an operation and as to the chances which it may offer to a patient. Thus it is that a bold, well-performed lateral lithotomy is quite possible to the young surgeon at the outset of his career, while nothing but considerable experience can make him a good lithotritist. The two operations can never be compared, nor their capabilities estimated, without keeping in view this fact. You whom I address had better, when in practice in the country, decide in difficult or doubtful circumstances to cut rather than to crush, until you have acquired some facility in the practice of the latter art, unless indeed the stone be quite small. Do not touch with the lithotrite in any circumstances a stone which is rather large until you have had experience with a small one or two.

Gentlemen, one great practical point remains, always recurs, and at last comes uppermost, on whatever side the great subject is considered. It is this: Detect the existence of a stone in the bladder early: it is always somebody's fault if not found early. The stone will then be small. It may be crushed at one or at most two sittings, with almost no risk. No question of cutting need ever arise; the presence of kidney disease need scarcely trouble you. I never in my life lost a patient, whatever his condition, whose stone was found and crushed when it was small; and I never expect to do so.

ON PARALYSIS, CONVULSION, AND OTHER NERVOUS AFFECTIONS IN SYPHILITIC SUBJECTS.

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(*Continued from page 286.*)

ALTHOUGH the more grave lesions of the nervous system consequent upon syphilis occur commonly in the tertiary stage, and often very late in this, cases from time to time present themselves which show that various portions of the cerebro-spinal system may be affected in a marked manner at a comparatively early period of the disease. Under these circumstances the tendency would seem to be towards a simple hyperæmia or inflammation of the tissues attacked—to processes, indeed, of an irritative character; whilst the more destructive effects seen at a later period depend upon the development of the characteristic gumma, which, by its pressure, cuts off the nutrition of neighbouring structures. But this question of the particular stage of syphilis at which lesions of the nervous system are liable to occur is one about which authorities are not agreed, and it is evidently beset with difficulty. Although in many instances the concomitance of highly characteristic features in the mucous surfaces, muscles, bones, or their covering, enables us readily enough to refer the nervous affection to the tertiary stage, there are, according to my experience, quite as large a number in which symptoms appreciable by the eye or hand which would help us to decide this point are entirely wanting. Still more, in a very considerable proportion of cases strict questioning has failed to elicit evidence of any skin or other affection whatever, whether of a secondary or tertiary character, having preceded the nervous lesion. My attention was drawn to this circumstance several years ago by my colleague, Dr. Ramskill; and I think Lancereaux makes a similar observation in his work on syphilis. In such cases the patient will freely acknowledge the occurrence of chancre and bubo, but at the same time deny that there have been any sequelæ. Clinically, therefore, supposing the lapse of time since infection to have been very short, and knowing, as we do, that tertiary changes are sometimes early in their development, and often delayed, we are without data to aid us in fixing the period of the constitutional disorder to which the affection of the nervous system belongs.

I do not think that I have seen any instance of the more severe forms of syphilitic nervous affection occurring sooner than two years after infection. It must be remembered, however, that we do not always succeed in getting trustworthy evidence on the point of date, patients being much disposed to refer to a very distant past the acquisition of a malady of this peculiar character. In other cases special circumstances will of necessity prevent our even obtaining any information whatever about the period of time which has elapsed since the disease was acquired. Pathologically the accurate reference of nervous affections to certain stages of syphilis is full of interest and value, but as a matter of practice—of the recognition and successful treatment of the disorder—it is not of much importance, and I shall refrain therefore from dwelling long upon this point in

papers which only aim at painting in broad touches certain clinical aspects of the disease.

The following case illustrates very well the character of the nervous phenomena which are apt to occur at an early period in the disorder. Having, in a previous paper, dwelt upon the frequency with which omissions are made in the detection of the syphilitic basis in many nervous affections, I am not sorry to add this case as an example of one (out of many, doubtless,) in which I was myself deceived for a considerable time as to the real nature of the disorder. Several years ago a tradesman, aged twenty-six, consulted me respecting certain general nervous symptoms—fluttering, agitation, palpitation of the heart, from which he had long been suffering. He described also a pain at the præcordia which attacked him in the middle of every night, and a terrible pain at the back of the head, which had troubled him with brief intermissions for three or four months. This was sometimes, especially from six to eight o'clock in the evening, so bad that he felt nearly losing consciousness. His tongue was furred; pulse 100, irritable, the artery seeming relaxed. The occiput was tender to pressure at one point, and there was a similar point of tenderness below each patella. He himself ascribed his symptoms to very frequent nocturnal emissions, which had troubled him for nine years. His skin seemed hot, but I am unable to give his temperature, as this happened before the introduction of the clinical thermometer into common use. For a fortnight I treated him with quinine with no beneficial effect, the only change to be noted being that the pain now sometimes affected each temple instead of the occiput. One day he let out that nine months previously he had contracted a chancre, which remained open for three months, and was followed a few weeks afterwards by a skin eruption, of which he showed me the remains—small brownish-coloured depressions. He had also had sore-throat. I now gave him iodide of potassium, followed in a few days by bichloride of mercury. He improved in a few hours, and in two or three weeks had recovered his usual health.

Functional disorders of the digestive organs and of the circulation, accompanied by vague nervous sensations, are very frequently dependent upon syphilis, and they are especially likely to give rise to mistakes of diagnosis, the stomach or liver being described by the patient himself as the offending organ. Here is a case in point. In March, 1870, a gentleman, aged twenty-three, consulted me on account of constant indigestion and headache, associated with attacks of faintness, which had been occurring about once in every three or four weeks for six months previously. In the attack he would turn pale, and, as he described it, there would be a feeling of impeded circulation in his extremities, and the veins of his hand would diminish to the size of threads. He had never actually lost consciousness, but was always able to struggle against the attacks, which sometimes ended in vomiting. He suffered very much from noisy flatulent dyspepsia, and to this cause he referred his attacks of faintness. By constitution a healthy young man, he had led a fast life in the army, and three years previously, as I chanced to know, had contracted a chancre, which had been followed by a skin eruption. Having been acquainted with him for several years, I was now able to notice a great alteration in his appearance. He was very weak, his complexion of a pale earthy hue, his pulse feeble, and his pupils unduly large. He had so lost nerve that he could not mount a horse. He suffered frequently from palpitation; the heart sounds were normal. Knowing his antecedents, I put him at once upon iodide treatment. In a week his general health was very greatly improved, but he now showed me a small, but not deep, ragged ulcer on one tonsil. To this sulphurous acid was applied. The specific remedy was continued, and by the end of a month he felt perfectly well. There had been no return of faintness; the throat had healed; his digestion had ceased to give him inconvenience; the pupils of his eyes had resumed their normal appearance. On one occasion only he had noticed the veins of his hands suddenly contract in size. I desired a continuance of treatment, and then lost sight of him till January, 1871. He had continued his medicine, it seemed, for a month only, and had remained quite well for several months. He now complained of a tender spot on one of his ribs and on his heel, in both of which situations I found a small periosteal swelling. The same treatment as before was resumed with immediate good effects, but there still remained a tendency to a return occasionally of sudden and transient want of circulation in his hands. I then added a sixteenth of a grain of bichloride of mercury to his iodide, and gave him this three times daily. Under this treatment he speedily lost all his symptoms. In the winter of 1871-72 I was called to him, and found him suffering from symptoms closely resembling subacute rheumatism—fever, pain and swelling of joints, and insomnia, which had troubled him in the country for several weeks. For this he took ten grains of iodide every four hours, and in a few days he had recovered completely. This was a case which, there can be but little doubt, would have eventuated in marked epileptic seizures under any but specific treatment.

There was much resemblance to many of the symptoms of this patient in those of another who consulted me about the same time, but whose progress I had not the opportunity of observing so closely. He had become epileptic, and the phenomena described occurred in the intervals of his fits.

The patient, a gentleman aged thirty-two, came to me complaining of extreme weakness, confusion in the head, and sense of weight in the forehead and vertex, flatulent dyspepsia, and loss of flesh. Two years previously he had first had an epileptic seizure, the immediate warning of which was a feeling as though his tongue swelled, and had since had, I think, two or three only at long intervals, the last having taken place the week before his visit to me. It had occurred in the night, and he only knew of it from finding his tongue bleeding in the morning, and a bruised sensation in his limbs. He was cachectic in appearance, with a furred tongue, and feeble pulse. He described a sensation of tingling in both hands, and of grains of sand running down the right side of his face. He had for some time been unable to sleep at night. He was daily subject several times to a sudden feeling of want of breath, and coincidently the veins on the back of his right hand would assume the appearance of blue threads. Whilst in my room he was so attacked, and I was able to observe this latter phenomenon. I noted also that he moved the right leg clumsily, and he described that it and the corresponding arm felt numbed. He felt, when the contraction of his veins occurred, that without a determined effort on his part he would become insensible; and this effort he was able to make. It should be said that he had formerly drunk a good deal, but there seemed reason to believe that he was no longer indulging to any great excess. I saw him very irregularly and at long intervals for about a twelvemonth. On each occasion I prescribed iodide for him, and always with immediate relief to his symptoms; but he failed to persevere in any regular course of treatment. This patient came of a family which had no neurotic history, and he was thirty years of age when his first fit occurred. Six years before this attack he had suffered from chancre; for which he had taken mercury until, as he expressed it, he "tasted copper." He had never had any skin eruption or bad sore-throat. As he was a man of superior intelligence, and showed no reservation in speaking of his history, I think this statement is to be relied on.

It is worth noting, as regards the symptom of sleeplessness, that the occurrence of prolonged insomnia, without any evident cause, should always suggest an inquiry into the history as to the existence of constitutional syphilis. This applies at least as strongly to children affected with this symptom, as they may be suffering from the inherited disease. If this be the case the insomnia will quickly yield to specific treatment, after having defied all other means to overcome it.

I will conclude the present paper with a very interesting case of paroxysmal aphasia, which circumstances showed was of syphilitic origin, although the existence at any time of a chancre was denied.

A man engaged in business, aged thirty, whom I had attended a year and a half previously for a trifling disorder of digestion, came to me so altered in appearance that I recognised him with some difficulty. His complexion was of a peculiarly muddy pallor, and his manner was extremely dazed and stupid. His speech was laboured and indistinct, and he said that he had to think much before he could find the right word to use. He could not remember names, and had observed that in writing he frequently substituted one word for another. He walked without a halt, his grasp was equally good on either side, and there was no traction of his mouth.

It seemed that two months previously, whilst at dinner, he suddenly lost his speech without any failure of consciousness, and an attack of precisely similar character had occurred five or six times since. Described in detail it was this. He suddenly found himself unable to hold things with his right hand. A peculiar sensation then travelled up from the two first fingers of that hand into his arm, which became numbed so that he could not move his fingers. Thence it passed to the right cheek, which it seemed to draw up as in a knot, and his tongue was then drawn over to the right side, so that for a minute or two he could not speak a word. In a few minutes the sensation disappeared, and the arm resumed its normal condition. But the power of articulation still remained impeded to the extent which I observed. The attacks described had occurred on an average once in ten days. He had been under medical treatment, in the course of which he had taken bromide of potassium, but without effect in preventing the attacks, one of which had taken place ten days previously. Urine acid, 1028, free from albumen or sugar. With the exception of dyspeptic ailments, his general health had been good; but I elicited that five years before he had suffered for no less than thirteen months from an ulcerated throat, of which the tonsils still showed slight cicatricial traces. He had never, to his knowledge, suffered from chancre, but was affected with gonorrhœa when his throat became ulcerated. He was ordered ten grains of iodide of potassium with twenty of bromide of ammonium three times daily. After five days he spoke more clearly, and had experienced no return of the loss of speech, nor of the queer feeling in his arm. His intelligence was brighter, and he told me, with some amusement, that for weeks past he had been dull and stupid to a degree. As an example of this he mentioned that he had constantly caught himself making puns, an occupation which was not at all his natural habit, and which vexed him much. Ordered fifteen grains of iodide with twenty of bromide three times a day. In three days more I found his complexion very much improved. His speech was still embarrassed, but he had had no return of the "sensations." He had now been free from them for three weeks, having never previously gone more than ten days without an attack. Ordered twenty-grain doses of iodide. This he fancied did not agree with him, so, after taking it for four days, I reduced the dose to five grains, and combined with it one-sixteenth of a grain of bichloride of mercury.

It is unnecessary to give his further progress in detail. Mercurial treatment was continued, broken on one occasion by the occurrence of diarrhœa, and he gradually improved vastly in health. On one or two occasions, either after overwork or exposure to a hot sun, he got a slight thrill in the first two fingers of his right hand, but he had no return of the loss of speech, and his articulation at all times became quite distinct. Ten weeks from the time of his first visit he felt as well as he had ever been, and was quite able to attend to his business.

(To be continued.)

ON A

SPECIES OF FILARIA FOUND IN THE INTERIOR OF THE VASCULAR SYSTEM OF A DOG:

RELATIVE TO THE FILARIA IN THE BLOOD, AND THE OVA AND LARVÆ OF A NEMATOID WORM IN THE URINE, OF MAN.

BY FRANCIS H. WELCH, F.R.C.S.,

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SINCE the discovery of the human hæmatozoon by Dr. Lewis, a description and drawings of which appeared in THE LANCET of Jan. 25th, 1873, and the detection of ova and embryos of a nematoid worm in the urine, often conjoined with a chyle-like condition of the secretion, any collateral evidence bearing on the subject, more especially as elucidatory of the natural history of the animals, which comparative pathology can supply, is acceptable.

In Dr. Lewis's paper (Annual Report of the Sanitary Commissioners of India, 1871) reference is made to specimens of a worm found in the blood of a dog in China by Dr. Lamprey, 67th Regiment, and forwarded to the museum of the Royal Victoria Hospital, Netley. These worms are the subject of the present communication.

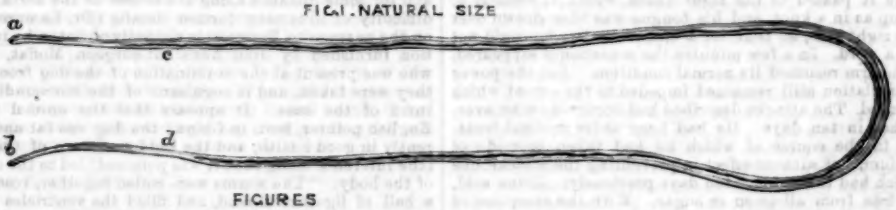
The brief statement which accompanied these worms shows that "they were taken from the heart of a dog at Shanghai on May 20th, 1865, and found in both ventricles and for some distance along the course of the aorta." The difficulty of obtaining further details (Dr. Lamprey being on the passage to Burmah) is partially obviated by information furnished by Staff Assistant-surgeon Moffat, Netley, who was present at the examination of the dog from which they were taken, and is cognisant of the surrounding features of the case. It appears that the animal was an English pointer, born in China; the dog was fat and apparently in good health, and the sudden nature of the death (the inference being that it was poisoned) led to the opening of the body. "The worms were coiled together, resembling a ball of ligature thread, and filled the ventricles to such an extent as to excite astonishment at the possibility of blood passing between or around them, and to, or from, the heart's cavities." The anatomical details of these worms are as follows:—

Mature worms.—Body long, thread-like, and cylindrical, averaging 10½ in. in length, but varying from 6 to 13 in., with a diameter of $\frac{1}{3\frac{1}{2}}$ in. in the centre, $\frac{1}{5\frac{1}{2}}$ in. at the head, and $\frac{1}{7\frac{1}{2}}$ in. at the tail; head blunt, tail bluntish, both gradually tapering to the maximum central thickness of the body. Colour milk-white, opaque. The body easily straightened out, and then resembling a piece of white twine; but in a few instances the posterior fourth of the animal concentrically curved on the body. With an ordinary hand lens, while holding the worm up to the light, two interior dark lines, differentiated from the surface structures, could be discerned: the one, the smaller, traceable throughout the entire body length with the exception of the immediate tail extremity; the other, the larger, commencing about half an inch from the head (Fig. 1, *a*), and terminating about an inch and a half from the tail (*b*). Further magnified, the body was found to be composed of an outer transparent cuticular layer (*a*, Figs. 2—5), from which delicate flattened scales became detached, succeeded internally by a fibre coat, apparently muscular, in layers, in the following relation to the surface:—Two oblique, intersecting each other at an acute angle, a longitudinal, a circular; the combined cutaneous and muscular tunics constituting about one-eighth part of the entire body diameter, and forming a cylindrical envelope to the contained organs; an alimentary canal and a generative system, both loosely lying within the outer parietes. The alimentary canal (the thinner of the dark internal lines of Fig. 1) consisted of a narrow tube commencing at the centre of the anterior end of the worm, and passing in a straight course, retaining the same calibre, to the tail end, where it terminated in a blind extremity among the convoluted ovarian tubes, in one instance being apparently doubled back on itself for a short distance. The organs of reproduction (the larger of the dark lines of Fig. 1) constituted the maximum of the body bulk. The uterine cavity consisted of a tube, frequently convoluted and encircling the alimentary canal, extending from one inch from the head to within an inch and a half of the tail of the animal. The walls were of a delicate transparent texture, marked by longitudinal and somewhat oblique fibres, probably muscular (Fig. 6), and contained innumerable ova and embryos, in varying quantities as to locality. From the uterine cavity smaller tubes or diverticula could be traced, which along the body length were coiled around the other constituents, and towards the head and tail filled up the space unoccupied by the uterine extremities; these diverticula contained sparsely scattered ova, and were regarded as oviducts, and as the female germ-producing structures. The anterior end of the worm, when magnified, gave the appearance shown in Fig. 2, the centre having a papilla in which a circular oval aperture was situated. Fig. 5 illustrates the structure of the tail, in which the muscular and cutaneous cylindrical envelope is beveled off in excess on one side, so as to throw the extreme tip to the opposite; the smaller tubes constituting the contained elements. There was no anal aperture. The outline of Fig. 5 gives an annulated character to this end of the worm; this, however, was not constant, and appeared dependent, in the illus-

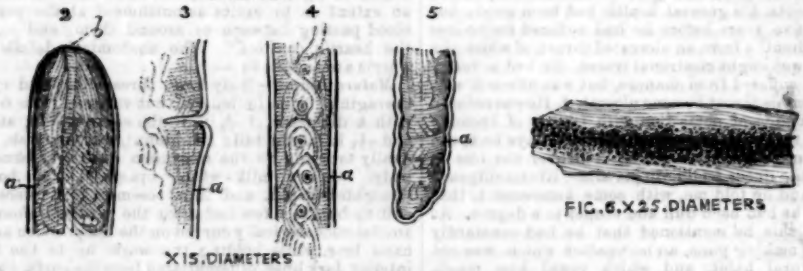
trating examples, on the influence of the longitudinal muscular coat; in the majority the outline of this part of the animal followed the contour of the body generally. About an inch and a half from the head of the worm (at *c*, Fig. 1) a circular aperture on the surface was observed, surrounded by an elevated ring; this was connected with a canal passing inwards, and lost to sight among the convoluted ovarian tubes. As seen in Fig. 3, the longitudinal muscular fibres curved in with the canal; the cutaneous envelope merged into its parietes; and, although not traceable to the uterine cavity, the canal was regarded as the vagina, and the circular orifice as the genital opening. Interspersed between

PARENT WORM.

FIG.1. NATURAL SIZE



FIGURES



X15. DIAMETERS

FIG. 6. X25. DIAMETERS

the ovarian convolutions were also a number of delicate tubes having no visible contents; very numerous towards the posterior end of the worm, and apparently connected with the round surface-markings shown in Fig. 4. These superficial circles, situated at *d*, Fig. 1, were the circumferences of oval depressions having at the bottom of the pit a central aperture leading to the clear tubes ramifying in the body, and constituting a water-vascular system; they were linearly arranged, as shown in Fig. 4, and five in number; but it would seem doubtful if they are limited to the tail end of the animal, as in one or two instances they were apparently present near the centre of the body also.

OVA AND EMBRYOS.

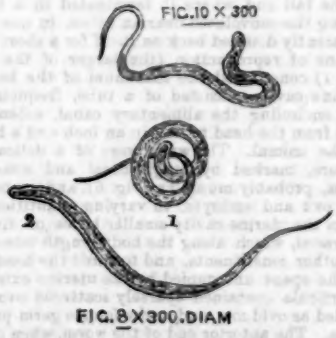


FIG. 8 X 300. DIAM

FIG. 9 X 600. DIAM.

Hence, from these anatomical details, the mature worm may be summed up as a filiform, musculo-cutaneous cylinder loosely enclosing an alimentary, generative, and water-vascular system; the reproductive organs largely preponderating, and opening on the anterior half of the worm near the head; the alimentary canal consisting of a simple blind tube, commencing in a papillary circular mouth; and the breathing orifices mainly located towards the tail. There was no male worm found, and it will be observed that these females, although present in the interior of the bloodvessels, and necessarily transferred there in a mature state, or immature from some other "host," presented no trace of an apparatus as a means of migration and possible explanation of their site within the bloodvessels.

Ova and Embryos.—The uterine cavity and ovarian tubes were filled with ova in different stages of maturity, and

coiled-up embryos devoid of all capsule. The maturity of the ova varied with the portion of the generative tract from which they were taken; being at an early stage in the ovarian tubes, and in a state of yelk segmentation, or enclosing the young worm, in the uterine cavity. They were of a spherical or oval shape, or larger at one extremity, like the hen's egg. The capsule, or outer membrane, was transparent and flexible; and, by pressure on the covering glass of the microscope-slide, it was easy to vary the shape of the egg, and to set free the contents by rupture of the shell. The ovum in the earliest stage (Fig. 7, *a*) consisted of an outer membrane, transparent contents, and a highly refracting nuclear particle; in the advanced were the segmentation of the yelk, and maturation of the embryo (Fig. 7, *b*). The average size was $\frac{1}{175}$ in. in length by $\frac{1}{1450}$" in thickness, but varying from $\frac{1}{250}$" × $\frac{1}{1000}$" to $\frac{1}{1125}$" × $\frac{1}{1750}$". As a rule, the increase of size was connected with maturation of the egg; but it was not difficult to find the smallest-sized egg enclosing the young worm ready to be freed from the egg-wall. Commingled with the eggs in the uterine cavity was the free embryo coiled upon itself. The young worm (Figs. 8 and 9) was of a filiform shape; centre of body, greatest thickness; head somewhat less in diameter and blunt; tail rapidly thinning off and pointed. The body-mass was translucent, and gave the idea of delicacy of texture. Following the contour of the body was an inner crenellated line which marked off a transparent parietes having much the aspect of the outer cuticular covering of the parent worm; this outer layer was traceable over the head, and merged into the general translucency of the tail-part of the embryo, constituting about one-fourth part of the total length of the body. The inner clearly-defined body-mass, of granular aspect, was of the same shape as the outer circumference. Towards the head of the embryo in some instances was an oval elongated saccule, suggesting a mouth or sucking disc; yet it was not a constant feature, and was occasionally shifted towards the centre of the worm. The granules of the interior were linearly arranged, following the body length, and, with the highest magnifying power (750 diameters), markings or lines were discernible, like the plications of a membrane, directed from the circumference towards the centre. No differentiation of the body-constituents into organs could be detected; and section through the body showed the same arrangement of the components—a narrow transparent outer rim, and a central granular solid mass with strongly defined circumference.

The average length of the embryos was $\frac{1}{175}$ in. by $\frac{1}{1450}$" in central body thickness, but varying from $\frac{1}{250}$" length × $\frac{1}{1000}$" thickness, and $\frac{1}{125}$" × $\frac{1}{1750}$" respectively; thus showing a considerable latitude in size, and a proportionate thickness to length from 1 to 16 to 1 to 28.

Remarks.—The presence of nematodes in the blood of the dog has now been frequently noted, and the editor of the *Veterinarian* (Jan. 1873) attests that "they are common enough in the bloodvessels in the young ass, colt, and some other animals." M. Gruby and Delafond originally detected minute worms in the canine blood very closely according in characters with the embryos above detailed, about $\frac{1}{175}$ in. in length and "less than a red corpuscle in diameter." They were found in the vessels in all localities, but were absent from the lymph, chyle, secretions and excretions. Injected into the blood of a non-contaminated dog, they were traceable at the end of three years; they lived eighty-nine days transferred to the blood of two rabbits; but died when placed in the serous and cellular tissues of dogs. It was clear that their habitat was the blood. On one occasion were the parent worms of these minute forms discovered lodged in a clot in the right ventricle of the heart, four females and two males, and from 5 in. to 7 in. in length and $\frac{1}{24}$" to $\frac{1}{16}$" in diameter: to these they gave the name of *Filaria papillosa hæmatica canis domestici*. Instances of so-called Spiroptera sanguinolenta are far from uncommon in the dog in China and Japan. Dr. Cobbold notes their frequency also in France and Germany, and mentions the length of one taken from a preparation of Dr. H. Bennett as 10 in. In the *Field* (1872, p. 162) is a communication from Mr. Dare recording the death of three spaniels, imported from England, from this cause, in China. Here the worms were found in the right side of the heart only, and in the branches of the pulmonary artery; they were from 6 to 11 in. long and $\frac{1}{16}$" diameter; and the suggestion is made that the germ or ovum was received in the food or drink, and by the thoracic duct into the venous circulation. In all the recorded instances in the dog the presence of these worms did not interfere in any way with the nutrition of the body (they were all fat and well) nor with the muscular powers; their sole deleterious nature was displayed mechanically, inducing death by actual rupture of the heart or obstruction of the pulmonary or cerebral circulation. Equally the larvæ appeared innocuous.

The identification of these canine nematodes as spiropteræ does not appear to have been accurately determined, while the recorded features would suggest their being linked with Dr. Lamprey's specimens. Considering the anatomical details of the Netley ovo-vivaparous nematoid worms, the propriety of retaining the original nomenclature of M. Gruby and Delafond is well grounded. In the general outline of the body, the round oral aperture, the blind alimentary canal, and the large uterine cavity, the canine filaria is allied to the F. medinensis.

Turning to the existence of larvæ and ova of nematoid worms in the human fluids, there is the original discovery of ova in the chylous urine made by Dr. Salisbury, and narrated in *Hay's American Journal*, 1868, p. 376. These ova were, according to Dr. Cobbold, "about $\frac{1}{75}$" in length by $\frac{1}{175}$" in breadth; in a state of segmentation of the yelk or embryo-containing"; not far removed in size from the ova of the canine filaria, and, comparing the sketches, markedly resembling them. Dr. Cobbold also, while pursuing the natural history of the bilharzia, obtained from a patient urinary parasites in the egg condition and dead embryos, which, "in spite of discrepancy of size," he considers "were identical with those of Dr. Salisbury, and referable to one and the same species of nematoid worms." Subsequently Dr. Lewis detected microscopic filariæ in fifteen to twenty patients suffering from chyluria, with more or less well-marked hæmaturia; the worms identical with those afterwards found in the blood canals.

A comparison of the embryo of the canine filaria with the woodcuts of Dr. Lewis's hæmatozoon (especially Fig. 3) will show a great concordance in anatomical details, more particularly when the modifications resulting from death are taken into consideration. The contour and body structure are the same in both, even to the vacuole near the head; the "delicate enveloping tube" of the human worm is absent in the canine, but (Fig. 1, No. 1, Dr. Lewis's woodcut) it is equally so in the dead hæmatozoon. These remarks will be more lucid by comparing Fig. 10, a dead hæmatozoon, sketched from specimens sent to Netley by Dr. Lewis, with Fig. 8, the dead embryos of the canine filaria—all equally magnified. How far the examination of the living canine worm would reveal further points of concordance is at present hypothetical, though suggestive. There is a dissimilarity in size and proportion of length to breadth, the human worm being longer and narrower; yet the conditions of life and age must be considered before pronouncing on this subject, and a wide range in dimensions is, as we have seen in the details of the canine embryo, observed in individuals from the same parent. The points of resemblance are such as to warrant the assertion that the human blood worm is an embryonic or larval state of a nematode, closely allied specifically to the filaria of the blood of the dog; and the ova and embryos of chylous urine and hæmaturia would apparently be included in the same category of natural history relation. Considering the frequency with which nematoid worms are found in the intestinal canal, the suggestion thrown out by Dr. Lewis as to the points of ingress of the hæmatozoon is rendered more probable. The possibility of a filaria of the size of the canine species obtaining access to the vascular canals in a mature state by boring from the intestine may doubtless be put on one side; yet, considering the faculty of migration through the tissues of the white blood-corpuscles, and the lesser diameter of the body of the embryo of the filaria, together with its brisk movements during life, the possibility of the passage of the microscopic worm through the intestinal mucous membrane into the bloodvessel or lacteal, especially through the soft granulations of an open ulcer, may fairly be taken into consideration. This, however, while possibly accounting for the ingress of individuals capable of arriving at maturity, does not explain the vast number of embryos amounting to many thousands—a feature rendered lucid only by the presence of one or more mature parent worms within the vascular walls.

CASE OF FEMORO-POPLITEAL ANEURISM CURED BY COMPRESSION.

BY SURGEON J. H. PORTER,
97TH REGIMENT.

D. B——, aged twenty-five years, very tall and slight, of delicate constitution, has suffered from extensive phlegmonous inflammation of right leg, from primary and secondary syphilis, with nodes on some of the long bones, and from suppurating bubo in left groin. Has used mercury in form of vapour baths, and believes he has taken it internally; smokes moderately; habits temperate. Is not aware of having strained the limb.

The following is the history of the aneurism in the patient's own words:—"The first time that I remember feeling pain, though I believe I felt uneasiness some time previously, was on the afternoon of the 25th December, 1872, when walking up a hill; I then felt pain and numbness in the tendo Achillis and calf of leg. From that time I felt severe pain after walking any distance, especially on one occasion. After going up and down stairs very often I felt throbbing in the back of knee of New Year's night, after using some exertion in walking. The leg appeared to get better for a few days before the night of the 10th January, 1873, and it did not pain me then until I had been dancing for two or three hours. I then felt very severe pain extending from just above the knee to the foot, which lasted until I saw the doctor on the morning of the 11th."

On the morning of the 11th I was requested to see the patient. On examining the left leg I found a large tumour of ovoid form, on inside of thigh above the knee, extending under ham-strings into popliteal space, and corresponding to position of artery after it has passed through adductor magnus. It was heaving more than pulsating, very tense; temperature sensibly increased. There was a loud bruit, and on pressure being applied to common femoral the heaving ceased, and tumour subsided and became silent. An aneurism was apparent, and I decided to attempt a cure by compression, my views being confirmed by Mr. Porter, Surgeon-in-ordinary to the Queen, who saw him that afternoon. Instruments having been obtained on the 12th, the lower part of limb was placed in cotton-wadding and flannel bandage, the hair removed from parts where pressure was to be applied, a firm bed made down, consisting of the leaf of a barrack table and two hair mattresses, and the parts well sprinkled with French chalk. Several different instruments were provided and used, but Read's compressor (third series) for groin, and Signorini's for thigh were found most convenient, being comparatively comfortable, and easy of application. During the course of treatment the flow of blood was completely arrested, and pressure was only applied during the day, the patient being allowed rest at night. The tumour steadily diminished, and on the 16th the pulsation and bruit were reduced to about one-half. On the 19th sharp pains were experienced in the knee, extending along inside of patella, where a small artery could be felt pulsating. On the 20th the tumour had become well defined; bruit very slight, in fact, more of a crepitating sound, but there was considerable pulsation. On the 21st, at morning visit, pulsation and crepitating sound continued; severe pain and uneasiness all day in knee. At evening visit, when instruments were being taken off for the night, pulsation had ceased, and the tumour was hard and perfectly silent; they were, however, reapplied for a few hours, and again the following day. The process of compression extended over a period of ninety-eight hours twenty-five minutes before a cure was effected.

Some difficulty in the treatment was anticipated at the commencement in consequence of there being a large scarred cicatrix in the groin, which it was feared would not tolerate the pressure; but it did not interfere. While the instruments were applied the case was never without an experienced orderly of the Army Hospital Corps, who thoroughly understood the object in view; and I received able assistance from Mr. Bredon, 97th Regiment, in carrying out the treatment. A glass of good claret with nourishing diet was allowed daily, and a few grains of tannic acid morning and evening.

The following tabular form gives at a glance the amount of daily pressure, comparative measurement of both limbs at seat of tumour, and condition of pulse morning and evening.

Date.	Hours applied.	Right. In.	Left. In.	Morning. Deg.	Evening. Deg.
Jan. 11th	—	14¼	16	88	—
12th	6	13¼	15½	88	—
13th	9.50	13½	15½	88	—
14th	9.50	14	15½	88	72
15th	10.20	14	15½	88	72
16th	10.15	13¾	15¼	80	72
17th	10.15	13¾	15¾	80	72
18th	10.35	13¾	15½	72	68
19th	10.28	13¾	15	68	66
20th	10.30	13½	14¾	66	68
21st	10.30	13¼	14¾	70	68

On the 13th February the tumour had almost disappeared.

In the Army Medical Reports published in 1869 I reported a case of popliteal aneurism cured in seventy-five hours by compression; but having only one instrument, and that Signorini's, the flow of blood was never completely arrested.

Dublin.

QUICKSILVER GIVEN TO PROCURE ABORTION, FOLLOWED BY MERCURIAL TREMORS.

BY SIR G. DUNCAN GIBB, BART., M.D.

A GASFITTER, occasionally employed about my premises, asked me to see his daughter, aged twenty, who had been seduced, and upon whom an attempt had been made to produce abortion by the administration of quicksilver. When about three months pregnant she was given by her seducer two teaspoonfuls and a half of quicksilver; the quantity was said to be near upon three, but the former was probably the correct amount. No effect was produced upon the uterus, but in the course of a few days she commenced to shake on the right side of the body, her gait became unsteady, and she stumbled frequently in walking. All these led her mother to discover her condition. When seen by me she was six months pregnant. The above symptoms were still present, and she could not grasp firmly with the right hand. In a fortnight after the shaking had extended to the other side of the body, and the left hand grasped feebly like the right. In the course of the next two months all the symptoms gradually became less, and I learnt were scarcely observable when she was confined at the end of September. The child had the snuffles from birth, no doubt from the constitutional effects of the mercury.

I found three teaspoonfuls of quicksilver to weigh five ounces and three-quarters, and she must have swallowed four ounces and a half. Probably a large part of this passed off by the bowels; some remained, became oxidised, and gave rise to the peculiar and well-known effects of the metal. There was not any salivation throughout, nor was there any blue mark on the gums as in lead-poisoning; they looked to be natural. I gave evidence in one of the police-courts, when her seducer, a young man and a neighbour of her father's, employed counsel in opposing an affiliation order; but the case was too clear, and it was granted.

So far as my knowledge goes, the case is unique in the object for which the metal was given, and medico-legally is of sufficient interest to place upon record. Differing from the generality of cases, the muscles of one side of the body only were first affected by the tremors, instead of the upper extremities, and then they extended to the opposite side of the body. No treatment of any kind was adopted.

Bryanston-street, Portman-square.

AT the annual meeting of the Glasgow Ophthalmic Institution, held on the 3rd inst., the Chairman announced that Mr. Ewing had intimated his intention of giving an endowment of £50 a year for ten years to the lectureship of Ophthalmic Surgery in Anderson's University.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

[TWO CASES OF PULPY DEGENERATION OF THE KNEE-JOINT; AMPUTATION; RECOVERY.

(Under the care of Mr. BRYANT.)

CAREFUL examination of the joints in limbs amputated for so-called pulpy degeneration will show that two different forms of the disease are included under the same name. These are: the brown pulpy degeneration of the synovial membrane, as described by Sir Benjamin Brodie, and illustrated in the first of the subjoined cases; and the gelatinous or gelatiniform degeneration, as exemplified in the second case. Both seem to be the result of a chronic inflammation of the synovial membrane; but the latter form is modified, moreover, by a scrofulous habit of the body. Brodie did not fail to observe the difference between the two, but confessed his inability to determine whether the pale or gelatinous variety is an early stage of the brown pulpy degeneration.

For the notes of the following cases we are indebted to Mr. Thomas Carey Barlow.

Louisa S——, aged fifty-two, was admitted August 28th with great swelling of the right knee. Fourteen years ago the patient was kicked over the right knee-joint, and had the foot at the same time severely wrenched. In a day or two the joint began to swell, for which she was under medical care for two months, the joint being blistered, and afterwards strapped. Since then nothing has been applied except cold water, and for the last thirteen years the patient has followed her occupation as a hawker, the swelling of the joint in the meantime gradually increasing in size.

On admission the patient was thin and badly nourished, the right knee-joint swollen, patella movable and readily elevated by compression of the swelling on each side and around it; the head of the tibia was also much swollen. Circumferential measurement at a level of the head of the tibia thirteen inches, round the patella seventeen inches, and two inches higher up eighteen inches; the measurement of corresponding parts of the left limb being ten, eleven, and twelve inches respectively. There was but limited movement in the joint, the patient being able to flex it only for about half a right angle, but by passive movement it could be bent to a right angle. The skin over the swelling was normal, but warmer than on the left side. There was subdued grating on moving the patella, and several loose bodies could be felt in and around the joint. There was no swelling at the back of the joint. The patient complained of pain shooting up to the hip and down the leg. The pain having increased in severity, and there being no hope of obtaining a useful limb, it was decided to amputate it.

On September 10th the patient was put on the operating table, and, chloroform having been administered, a trocar and canula were introduced into the swellings around the patella, but no fluid escaped on withdrawing the trocar. A long anterior and a short posterior skin flap were now made as if for amputation through the joint, but on reflecting the skin and cutting into the swelling a brownish, soft, semi-solid material was exposed, and it was therefore deemed advisable to cut free of the mass, and accordingly, the skin being further reflected, the tissues at the lower part of the thigh were divided by a circular sweep with the knife, and the bone sawn through at the upper part of the lower third. Several vessels were twisted, the skin-flaps shortened and brought together by carbolised catgut ligature. A back-splint having been applied, the wound was covered with dry lint, over which was bandaged a pad of cotton wool.

On section of the diseased structures, the synovial membrane was seen to be enormously thickened, of a chocolate-brown colour, soft, and pulpy. The joint was the seat of osteo-arthritis, portions of the bone having undergone eburnation, and new bone having formed around the articular facets. The inter-articular cartilages were not very materially affected, but the articular were granular and sodden in parts, and hollowed out at the surface, the cavities being occupied by the brownish material. Some loose ovoid bodies of various sizes were found. The bones had undergone inflammation. The muscles and cellular tissue surrounding the articular were involved in the brown pulpy degeneration.

The stump was dressed for the first time on the 13th. On removing the dressings union of the flaps was found to have taken place throughout the whole length, except about one inch at the lower end. Water-dressing was applied, and the stump fixed to a splint.

Sept. 15th.—Wound dressed again; looks healthy. Two sutures removed, and about one ounce of blood that had collected was allowed to escape. The temperature has not exceeded the normal since the operation.

20th.—Wound syringed with solution of permanganate of potash. A perforated zinc splint was bent over the end of the stump, and fixed to the limb in such a manner that a space of eight inches was left between the bend in the splint and the end of the stump. A weight was attached to the splint by means of a cord passing over a small wheel at the end of the bed. The effect of this was to draw down the flaps, and keep them together. The dressings were applied under the splint.

28th.—Stump painful. About 9 o'clock yesterday evening the patient awoke to find the stump bleeding freely. A tourniquet was applied, and the hæmorrhage controlled.

Oct. 2nd.—Hæmorrhage has not recurred. The stump continues to be painful.

19th.—Patient got out of bed for the first time.

27th.—Wound progressing favourably; granulating surface not larger than a florin.

From this time the patient rapidly improved in health, and by the end of November was quite well.

C. R——, a girl aged twelve, was admitted on the 18th of September, 1872, with disease of the knee-joint. About five years ago the joint was painful and swollen, when she became an out-patient at St. Bartholomew's Hospital for one month; at the end of which time she had recovered the use of the joint, and felt no inconvenience till eight weeks ago, when she went to St. Thomas's Hospital, where she attended as an out-patient for six weeks. The disease, however, became worse, and the friends called in a surgeon, who ordered the joint to be poulticed and to have eight leeches applied. The pain was greatly relieved by these measures; but about a week before admission into the hospital the surgeon made an incision into the tissues surrounding the joint, and let out a large quantity of pus.

On admission, the right knee-joint was much swollen, measuring 14 in. in circumference, the left being 10½ in. On the outer side was a wound about 2 in. in length. The head of the tibia was enlarged. The patient could move the limb, but there was a fluctuating swelling of the joint.

Sept. 19th.—Mr. Bryant made an opening into the joint; but no discharge came away. A piece of lint was inserted into the opening, and a poultice applied over it.

22nd.—The limb was put on a straight splint.

25th.—The piece of lint was removed. A good deal of pus came away when the poultices were changed.

Oct. 2nd.—Amputation through the lower part of the thigh by anterior posterior flaps. The muscles were so infiltrated that they did not retract when cut. The femoral artery was surrounded by a mass of indurated tissue, which had to be slit up before the vessel could be twisted. The flaps were then brought together with carbolised catgut ligatures.

The synovial membrane and the ligaments surrounding the joint were found to be infiltrated with a soft, pale gelatinous matter, which extended into the cavity of the joint and concealed the articular cartilages to which it was attached in many places. The crucial ligaments were similarly affected. The opening on the outer side of the limb communicated with an abscess outside the joint. A second abscess was found in the soft tissues on the inner side of the femur.

7th.—Wound dressed for the first time; looks healthy very little discharge, and no pain. Temperature has not exceeded the normal.

18th.—Patient sat up for the first time. Wound healing rapidly.

27th.—Doing well. Wound dressed every other day.

From this time the patient progressed favourably, and by the end of November was quite well.

ST. BARTHOLOMEW'S HOSPITAL.

DIABETES MELLITUS; RELIEVED BY THE ADMINISTRATION OF OPIUM.

(Under the care of Dr. HARRIS.)

THE treatment of diabetes mellitus is most unsatisfactory, and must necessarily be so till we possess more accurate knowledge of the pathogeny of the disease. The fact that so many different plans of treatment have been proposed shows that none are reliable. Some have excluded all starchy and saccharine matters; some have endeavoured to increase the supposed normal transformation of sugar in the system, while others attempt to stop or limit it; others, again, have tried to compensate for the excessive loss of sugar by supplying saccharine matters; but this plan has resulted in decided failure. Nor has the treatment by skimmed milk been attended by more fortunate results. Discarding theory and regarding merely the clinical aspect of the case, it would appear that opium yields the best results. But even this drug will rarely do more than relieve the symptoms and diminish for a time the quantity of sugar in the urine.

For the notes of the following case we are indebted to Dr. de Havilland Hall.

E. G——, aged twenty-eight, brass-finisher, was admitted into John ward on July 31st, 1872. On his admission he stated that, with the exception of frontal headaches, his health had been good. About four months previously he noticed that he had an enormous appetite and was very thirsty. He is a fairly nourished man, but says that he has lost flesh lately. Nothing amiss could be detected in the chest or abdomen. Urine (in eighteen hours) five pints; specific gravity 1050, loaded with sugar; at one time he states that he passed two gallons a day. He was ordered full meat diet without potatoes, six slices of toast, four bran biscuits, two ounces of butter, four ounces of bacon, greens, and two bottles of soda-water.

Aug. 3rd.—Half a grain of powdered opium to be taken night and morning.

6th.—Toast to be reduced to four slices; six biscuits. Urine varying from eight pints and three-quarters (specific gravity 1038) to five pints (specific gravity 1042).

7th.—Complains of feeling drowsy. Opium to be taken only at night.

10th.—Urine four pints and a half; specific gravity 1042. Bowels rather confined. Ordered a mutton chop in addition to the full meat diet, two slices of toast, with eight biscuits; compound colocynth pill or purgative enema when required.

17th.—Urine three pints; specific gravity 1042. Suffers from flatulence very much. Ordered four ounces of brandy.

20th.—Urine has decreased to one pint and a half; specific gravity 1032. Ordered rice pudding and two slices of bread, so that the diet should not be too rigid.

29th.—Urine three pints; specific gravity 1040. Omit pudding and bread. One grain of opium three times a day.

Sept. 23rd.—For the last three weeks the patient has passed about two pints and a half of urine daily; specific gravity generally about 1032; only once has it reached 1040. One grain of opium every four hours.

Oct. 24th.—During the past month the urine has varied from one pint and a half to two pints and a half daily; specific gravity 1030 to 1040. To-day the urine is one pint and three-quarters; specific gravity 1034. The patient says he does not feel so well as he did. Opium to be taken only three times a day.

The patient did not improve after this point; he passed about two and a half to four pints of urine daily, the specific gravity averaging about 1036, and containing large quantities of sugar. Discharged at his own request.

In this case the opium, when given in full doses, caused a reduction in the quantity of urine passed, but without materially affecting the specific gravity. The patient gained flesh very much during his residence in the hospital, and seemed much stronger than on his admission.

WEST NORFOLK AND LYNN HOSPITAL.

STRICTURE OF THE RECTUM, CAUSED BY INJECTION OF BOILING WATER AND TURPENTINE; FORCIBLE DILATATION; CURE.

(Under the care of Dr. LOWE.)

FOR the notes of this interesting case we are indebted to Mr. S. M. W. Wilson.

Mich. B——, aged forty, was admitted into the hospital on the 4th of November, 1865. He complained of complete incontinence of fæces, and stated that about thirteen weeks ago, while at work in the harvest field, he was suddenly seized with a severe pain in the lower part of the bowel. He went home, and sent for a medical man, who gave some aperient medicine; and, as this failed to relieve him, an enema, consisting of the whites of two eggs, two or three ounces of turpentine, and a pint of hot water, which by some mischance happened to be near boiling point. After this was administered he complained of excessive pain in and around the rectum; and two days afterwards passed some pieces of substance like skin. He remained in a weak and suffering state for a considerable time, and ever since had been unable to retain his motions, which were constantly passing in a liquid state.

On examination after admission, large cicatrices from the scald were found all round the verge of the anus. The sphincter was completely paralysed, and would readily admit all the fingers of the hand at the same time, but they could only pass for a short distance, as the rectum appeared to be entirely closed, and the canal obliterated. On careful search, however, a minute, oblique, and almost valvular opening was found on the right side, which would barely admit the tip of the little finger. It was situated about three inches from the verge of the anus, and through it there was a constant discharge of liquid fæces, of a pale-yellow colour. The patient was much reduced by the long continuance of this distressing condition. A No. 2 rectal bougie was passed with some difficulty. Ordered one-fourth of a grain of extract of nux vomica three times a day.

Nov. 21st.—Is somewhat improved in health, and has a little consciousness of the motions passing. A No. 3 bougie passed with difficulty and with slight bleeding.

Jan. 10th, 1866.—Patient's health being quite re-established, he was made out-patient until the arrival of an instrument for forcible dilatation, which had been ordered from Messrs. Weiss. It was found that no progress was made by the ordinary bougie, for even a few days after passing No. 4, the stricture had recontracted so as barely to admit No. 2. The sphincter had also regained its power, which made it impossible to introduce a large bougie and the finger at the same time, and without this the opening could not be found. After a design sent to him by Dr. Lowe, Mr. Weiss made a very nice instrument on the plan of Holt's stricture dilator. The blades when closed are about the size of a No. 2 rectum bougie; the central pin passes through a set of conical dilators, which enable the blades to be separated as far as may be desired.

After readmission of the patient, this instrument was used with perfect success, the passage after the first introduction of the dilator readily admitting a No. 7 bougie. It did not cause much pain, and only a few drops of blood followed its use. On the second occasion No. 10 was passed, and now, at a lengthened period from the third dilatation, No. 12 passes with great facility. Patient has full control over the action of the bowel, and is entirely restored to health. He is discharged, but is to come up at intervals of a month or two, to ensure the patency of the bowel.

May 10th.—No. 12 passes readily.

May 31st, 1870.—Continues quite well. Can pass a good-sized motion, which is, however, slightly flattened.

Jan., 1873.—Has been at work and in good health ever since his discharge from the hospital.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEB. 25TH, 1873.

T. B. CURLING, F.R.S., PRESIDENT, IN THE CHAIR.

ON DISSEMINATED SUPPURATION OF THE KIDNEY SECONDARY TO CERTAIN CONDITIONS OF URINARY DISTURBANCE.

BY W. H. DICKINSON, M.D. CANTAB., F.R.C.P.,

SENIOR ASSISTANT-PHYSICIAN AND LECTURER ON PATHOLOGY AT ST. GEORGE'S HOSPITAL, PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, ETC.

IN this paper the author proceeds to describe the peculiar suppurative condition which is sometimes spoken of as the "surgical kidney," and is produced, as he shows, by the contact of unhealthy urine. Of all renal disorders, next to those described by Bright, it is the most destructive to life. It may almost be said to form the natural termination of stricture of the urethra, and is the especial danger which attends the use of the catheter and lithotrite.

The renal change which is always associated with signs of pelvic and vesical inflammation, and often with alterations of the gland dependent on wasting pressure and chronic vascular disturbance, essentially consists of a peculiar turgidity and friability of the renal structure, with the formation of small scattered abscesses, or soft yellow deposits antecedent to abscesses, throughout its structure. With these are usually seen conspicuous white lines in the cones, which are morbidly occupied straight tubes.

With this condition the microscope shows more or less dilatation of the straight tubes, distension of, or coagulation within, the bloodvessels associated with them, and disseminated intertubular suppuration, the distribution of which is regulated by the course of the veins. (The microscopic appearances were illustrated by drawings which show the dilatation of the straight tubes; the irregular repletion of, or coagulation within, the vessels of the cones and the larger veins of the cortex; and the origination of abscesses around the affected vessels and throughout limited tracts of the intertubular tissues. The swelling of the intertubular tissue where thus infiltrated by the new cellular formation was strikingly depicted in contrast with the slender network presented by the same structure in a part of the gland exempt from the change.)

Taking the structural changes in their mutual relation, the usual dilatation of the tubular exits, the morbid occupation of the veins, and the general absence of tubal inflammation, the nature of the process is clear. The disorder has its origin in the regurgitation of urine charged with morbific products. This occupies and generally distends the straight ducts, and thence enters the neighbouring bloodvessels, and charges them with an infection resembling in its results that of pyæmia. This is distributed by the veins to the rest of the gland, sowing abscesses in their course, and ultimately causing constitutional symptoms analogous to those of pyæmia when otherwise derived.

The urine being obviously either the source or the vehicle of the morbific matter, it remains to inquire whence and in what circumstances it becomes thus contaminated. To help in answering these questions the author has collected the particulars of 69 cases from the post-mortem books of St. George's Hospital. The disorder was traced to mechanical obstacles to the escape of urine (stricture or enlarged prostate) in 31 cases; to paralysis of the bladder in 17; to stone in the bladder or operation for its removal in 15; to cystitis from other causes in 5; and in 1 to a renal calculus complicated with enlargement of the prostate. Looking at the urine as directly connected with the origin of the disease, it appears that three conditions usually concur—retention, ammoniacal decomposition, and admixture with the products of mucous inflammation. Of these, ammoniacal decomposition appears to be essential, or at least to be constantly present. The urine is also generally fetid, and more or less mixed with vesical products, pus, mucus, and blood. The ammoniacal change, although possibly arising independently of mucous inflammation, produces it so constantly that the origin of the disease is always thus complicated. The clinical antecedents to this condition are fundamentally of two kinds—those which begin with retention, and those which begin with cystitis; both in the end producing an ammoniacal and putrescent state of urine. Mechanical obstacles and loss of expulsive power, belonging to the first and larger class, occasion the retention and subsequent decomposition of urine, and its consequent admixture with the products of mucous inflammation. Stone and other vesical irritants, belonging to the second class, begin by causing morbid vesical discharges, which render the urine prone to decomposition, and ultimately induce in it a putrescent condition, not altogether dissimilar to that which springs from retention. The rarity of the renal disease as a consequence of stone in the kidney is probably to be explained by the less putrefactive tendency of the discharges from the pelvic membrane, or of the urine in that cavity.

In cases otherwise so tending, catheterisation, lithotrity, or some such instrumental proceeding, seems sometimes to act as the immediate instigator of the morbid process, as is witnessed by the common phrase which stigmatises the disease as the "surgical kidney." The disorder, however, may arise independently of any surgical intervention, and would perhaps be better distinguished by the term *uriseptic*, which would declare its general clinical relations more comprehensively.

Having regard to recent researches which have associated the lower kinds of organic life with pyæmia, it is worth noting that the condition of urine which causes the disease now in question is one in which vibriones and bacteria abound. From this, however, no inference as to the nature of the virus can be safely drawn, except that it is associated with decomposition.

Passing to the symptoms of the disease, they have a general resemblance to those of pyæmia, being those of blood-poisoning rather than of renal inflammation. Unlike what happens with pyæmia, organs other than the kidney appear seldom to share in the suppurative process. The complaint usually ends fatally within three weeks of the first symptom, though there is evidence that recovery sometimes occurs. Perirenal suppuration is an occasional result.

In treatment our efforts must be directed chiefly to prevention, to which end, beyond cautious surgery, measures of two kinds suggest themselves. First, the preservation or restoration of the natural acidity of the urine, a matter of most difficulty where it is most needed; secondly, as a suggestion as yet unwarranted by experience, the introduction of antiseptics by injection into the bladder.

To sum up: the form of renal suppuration which may be termed uriseptic has its origin in ammoniacal and putrid urine, poison from which is conveyed by the veins into the substance of the kidney, and thence infects the system, causing symptoms in some respects resembling those of pyæmia. As this form of disease is little obedient to curative medicine, though not necessarily fatal, our efforts must be directed towards the correction of the state of urine from which it springs.

SIR WM. GULL said he was much interested in the paper, which had explained to him the pathology of this form of disease, which he had not known till now. The distribution of the pus was peculiar. Some interesting observations as to the calibre of the tubules had lately been made, showing that it diminished as the tubules proceeded from the cortex to the pyramids; this would be an objection to the old theory, and would confirm Dr. Dickinson's views, which his drawings demonstrated. He had pointed out a state of urine attended by decomposition, from the presence of mucus as the cause. It was of importance to consider how this ammoniacal condition of the urine could be corrected. He thought internal remedies were slow and limited, and not to be depended upon. Ammoniacal urine began in the bladder rather than in the kidney, and so it would be better to employ such remedies as injections into the bladder. There were cases in which the urine was alkaline and remained so for years, but when it became ammoniacal the acute change described set in.

MR. BARWELL said that there might be for a long time alkaline urine without this condition being produced. Were there any indications which should make one careful of operating in such a case? He had one or two difficulties as to the pathology. He could hardly conceive so many cases of surgical diseases with reflux of urine to the kidney. Dr. Dickinson said he had found urine in the pelvis of the

kidney the same as in the bladder; if this was not from reflux, how was the disease communicated to the mucous membrane of the pelvis, so as to cause the same condition of urine? Then as to the origin of perinephritic abscesses, he thought they might arise apart from any such cause as rupture of a superficial abscess through the capsule, and related a case where the most minute examination failed to detect any opening, scar, &c.

The PRESIDENT asked Dr. Dickinson if he had met the disease of kidney in every case of death after fracture of the spine? In cases of paraplegia the urine was for a long time ammoniacal, and yet they recover. The urine might be ammoniacal when passed from the bladder, and yet acid when passed from the kidney. If drawn at frequent intervals, so as to be only a short time in the bladder, it would be found acid.

Dr. DOUGLAS POWELL asked on what grounds Dr. Dickinson regarded these as cases of pyæmia, or analogous to them? Was the temperature high or intermitting? As the pathological change was local, he thought the disease should not be called pyæmic. He did not understand how the poison was communicated from the bladder to the kidney by veins. As to the causation of the local disease—Dr. Dickinson said from infection through ammoniacal urine—the drawings seemed to show urine secreted at a greater pressure than normal. He had noticed the same in lung diseases, where the removal of mucus was obstructed. This led to dilatation of the tubes and retained secretion, and so inflammation, and this without decomposition of the secretion. He thought the suppuration might in this way be explained without direct septic influence.

Dr. GREEN thought that the explanation given of the pathology was correct. He wished to ask, however, if it was true that suppuration was the earliest result of the decomposition of the urine or internal conditions of the bladder? Ammoniacal urine produced intense changes in the bladder, and ought we not to have symptoms showing this? Most often he had found other changes in the kidney, and it was difficult to say whether they were due to the urine or not. He did not think it was necessary to suppose that urine was regurgitated to set up inflammation of the kidneys.

Mr. T. SMITH said that Dr. Dickinson rejected the mechanical theory, and proposed a chemical or septic cause. The ammoniacal urine regurgitated into the tubules and in the veins set up inflammation, but how did the poison enter the veins from the urinary tubules? There were cases to which Dr. Dickinson's explanation could not be applied. A patient suffered from urinary irritation, and there was no reason to suppose urinary degeneration. Lithotomy was performed, and a few days after the patient died with this form of kidney. Persons with obstructive urinary disease often passed a few days before death a large quantity of pellucid urine faintly alkaline, and at the autopsy diffuse abscesses were in the kidney.

Mr. MARCUS BECK said that, with regard to pyæmia in these cases, he had noticed that the temperature was always low three or four days before death; in one case even 96° F., in another it remained at 97° F. for three weeks. As to the extension of the decomposition, Dr. Dickinson said decomposed or alkaline urine was found in the pelvis of the kidney. In a case he saw lately, one pelvis contained alkaline mucus, the other the same, but not decomposed; both ureters were inflamed. If the decomposition was due to vibriones and bacteria we could understand the extension of the disease from the bladder to the ureters. As to disinfecting the bladder, in one case quinine and sulphuric acid was injected two or three times. The urine became acid, and the patient improved. After the third relapse the bladder never became again sweet, and so the inflammation spread up the ureters, and he passed decomposed urine, and at the post-mortem examination diffused abscesses were found in both kidneys.

Sir W. GULL said that, when urine was found alkaline in the pelvis of the kidney, it was never secreted so, and referred to an experiment made by Dr. Rees as confirming this.

Dr. SYMES THOMPSON said, assuming Dr. Dickinson's conclusions to be true, it was difficult to understand how many cases of long-standing ammoniacal urine went on for so long without kidney complication. This ought not to be.

Dr. GOODHART had noticed in many cases of old stricture where the urine had been ammoniacal, the kidney-substance scarred and granular as from old embolic patches. He explained it by a lesser degree of the same suppurating kidney, from which the patient recovered. Again, one kidney might be contracted and the other suppurating. Inflammation had been set up in the first, and then stopped, and an atrophied condition resulted.

Dr. DICKINSON remarked upon the number of members who had taken part in the discussion, and regretted that it was not possible to reply to each at the conclusion of his observations. He acknowledged the cordial approval of Sir William Gull. With regard to Mr. Barwell's remarks as to the regurgitation of the urine from the bladder, it was sufficiently evident that under vesical and uretral distension the valvular arrangement at the end of the ureters acted imperfectly, as was shown by the fact that when urine was altered in the bladder it imparted its character to that in the ureters and pelves. As to perirenal abscess as a result of the renal suppuration, no doubt it commonly originated in the perforation of the capsule of the kidney by a pustule upon its surface; the opening by which the matter had passed from the inside to the outside of the kidney was generally visible, and possibly sometimes existed when not found. A case like that alluded to by Mr. Barwell, in which no communication was seen between the pus within the capsule and that outside, had happened not long ago at St. George's Hospital. No doubt the suppurative process may cross a membrane without any visible perforation, though a tangible hole is commonly produced. With reference to what fell from the President, Dr. Dickinson said that, though the renal mischief did not follow every instance of paraplegia from disease or accident, yet, as the details in the paper showed, it was exceedingly common as the result of spinal causes. Probably, as pointed out by the President, the urine was secreted acid, and in such cases became alkaline by decomposition in the bladder. In reply to Dr. Powell, Dr. Dickinson said that the evidence of constitutional change was abundant in the symptoms, which had a close general resemblance to those of pyæmia, though points of difference had been referred to in the paper. As to the conveyance of the morbid influence from the bladder to the kidney by veins, Dr. Dickinson disclaimed any such absurd opinion, since there were no veins which could serve such a purpose. He supposed that the urine conveyed the influence from the bladder to the kidney, and carried it into the straight tubes, whence it contaminated the neighbouring veins. As to Dr. Green's question, the rapidity with which the affection sometimes came on in persons until lately in good health showed that antecedent chronic changes were not necessary. Alterations of old standing were present in most cases, but not in all. They rapidly followed fracture of the spine in previously healthy subjects. Such cases as those referred to by Mr. Smith, where the disease followed upon an operation, though the urine had been natural previously, were not opposed to the view suggested. The urine was ammoniacal after the operation, though possibly not so previously to it. In reference to a remark from Mr. Gaskoin, Dr. Dickinson fully acknowledged the usual pathological accuracy of Sir B. Brodie, though he thought that in this instance he had inverted the order of the changes. In conclusion, he thanked the Society for the appreciative criticism accorded to his paper.

ANNUAL MEETING, MARCH 1ST, 1873.

The annual meeting of the Society was held on Saturday last, March 1st, at 8 P.M.; T. B. Curling, F.R.S., President, in the chair.

Dr. Tilt and Mr. Christopher Heath were nominated scrutineers of the ballot for the new officers and Council.

The abstract of the income and expenditure of the Society for the year 1872 was read and adopted on the motion of Dr. Barclay, seconded by Dr. Sieveking, after some remarks by Dr. Althaus in favour of a reduction of the annual subscriptions, which were replied to by Mr. Charles Hawkins, who showed that several of the sources of the Society's income were of so uncertain a character as to their continuance that, independently of the question of policy, it would be highly dangerous to entertain the question of such a reduction.

The Report of the President and Council gave an analysis of the income and expenditure, the ordinary part of which was much the same in amount as in previous years. The

extraordinary expenditure was, however, very large, and included the whole of the cost of the recent new library buildings and alterations, amounting to above £1800. The report stated that 21 new Fellows (including one honorary Fellow, Dr. Claude Bernard) had been elected, and 22 had died; and that the total number was now 652, slightly below that of several preceding years. The sum received by the Society from the Committee of the "Marshall Hall Memorial Fund" had been placed in the Funds, in the names of trustees, in May, 1872, as resolved in the report adopted at the last annual meeting; and the interest accumulating on the sum invested (£566) would be given as the first prize at the end of five years (in May, 1877). The liberality of the Society in releasing the Society for the Relief of Widows and Orphans of Medical Men from further payment of rent had been warmly acknowledged by that Society in a resolution carried at their last annual meeting. The motion for the appointment of a committee on the specimens submitted to the Society by Sir W. Gull and Dr. Sutton, and by Dr. George Johnson, had been under consideration; but it had been found impossible to secure the co-operation of Fellows whose decision would carry sufficient weight. The rest of the report consisted of details relative to the addition of books to the library, and to the beneficial effects of the new buildings and alterations with regard to a very large increase of space, and to the more convenient arrangement and management of the library, the actual space gained being sufficient for about 30,000 volumes, making provision for more than thirty years, the term of the present lease held from the ground landlord by the Society. The report particularly referred to the valuable services of the President, Mr. Curling, and Mr. Chas. Brooke, hon. librarian, who had given their assiduous care and attention continuously in superintending the whole of the building alterations and redecoration of the Society's rooms.

The PRESIDENT, in his address to the meeting, referred to two topics of more than ordinary interest which had been before the Society during the session—viz., "the condition of the heart and arteries in chronic Bright's disease" and "vaccination-syphilis." With regard to the first, the report had mentioned the failure to secure a committee whose decision would carry sufficient weight with the profession; but he confidently hoped that, as the points at issue were matters of fact, they would sooner or later be worked out by independent observers. The importance of the vaccination-syphilis question in relation to the public health could not be exaggerated; but the very few instances in which syphilis had been communicated, while sufficient to induce increased care in the selection of the virus and the performance of vaccination, should have no disquieting effect on the public mind, or deter the authorities from the vigorous enforcement of this preventive measure. After an allusion to the success of the first conversazione of the Society held in the past session, the President gave obituary notices of those Fellows who had died since the last annual meeting; they included, with considerable details of their career, the following names: Dr. James Alex. Gordon, Dr. C. J. B. Aldis, Mr. F. C. Skey, Mr. Alfred Poland, Mr. Thomas Hewlett (of Harrow), Mr. Martin Ware, Mr. James Startin, and Mr. Holmes Coote; and, with shorter notices, the names of Mr. Caleb Burrell Rose (of Yarmouth), Dr. Alex. Browne (of Kirkcudbright), Mr. James Spark, Mr. William E. Masfen (of Stafford), Mr. Weeden Cooke, Mr. Bowyer Vaux (elected in 1806, and the senior Fellow of the Society), Dr. T. T. Roscow (of Brussels), Dr. John Davies (of Hertford), Dr. Benjamin Godfrey (of Enfield), Mr. W. R. Cooke (of Slough), and Dr. James Walsh (of Limerick). The President, in his notice of Dr. James A. Gordon, alluded to his having originated the *Quarterly Journal of Foreign Medicine and Surgery*, and to his having been one of the first to draw attention to foreign medical literature, which was little studied by members of our profession in the early part of the century. In 1827–8 he was physician to the London Hospital; he resided in Finsbury-square, and had a large city practice, till 1842, when he moved to Grosvenor-street, and shortly afterwards retired on an ample fortune to the neighbourhood of Dorking. Dr. Aldis, who was successively physician to the London, the Surrey, and Westminster Dispensaries, was favourably known for his exertions as a sanitary reformer, and gave evidence before the Health of Towns Commission in 1844. He was elected officer of health for St. George's, Hanover-square, and retained the appointment till his death. The President alluded in feeling terms to his honourable character and self-denying labours in the drudgery and monotonous duties of the various small appointments he had held during the best years of his life, before the success of his later philanthropic and sanitary undertakings. In noticing the career of Mr. Skey, the President alluded more particularly to his connexion with the Aldersgate School of Medicine; his retirement from the office of surgeon to St. Bartholomew's (under the rule requiring such retirement at the age of sixty-five) after holding the appointment for only nine years; his delivery of the Hunterian Oration in 1850; his appointment as Professor of Human Anatomy and Surgery in 1852; his attainment of the presidency of the College in 1863; and his appointment as chairman of the Government Committee to inquire into the Treatment and Prevention of Venereal Disease in the Army and Navy, whose labours resulted in the Contagious Diseases Act, to the benefits of which in preventing syphilis the strongest testimony has been borne by the surgeons of the army and navy. Mr. Poland was appointed assistant-surgeon to Guy's Hospital in 1849, and for a portion of his career devoted himself to ophthalmic surgery, and was surgeon to the Royal Ophthalmic Hospital. He contributed papers on Tubular Aneurism and Compound Fracture to the "Medico-Chirurgical Transactions"; obtained the Jacksonian prize in 1857, for an essay on Gunshot Wounds; and was one of the editors of the "Guy's Hospital Reports," to which he contributed numerous papers, including an elaborate one on Subclavian Aneurism. He also wrote articles on Tetanus, Animal Poisons, Injuries of the Head, Calculi and Lithotomy in "Holmes's System of Surgery." He was an able and indefatigable writer, and had a thorough acquaintance with surgical literature. Mr. Startin, after being in practice at Warwick, went to the Continent, and devoted himself to the study of diseases of the skin at the Hôpital St. Louis, in Paris. After his return to England he commenced practice as a dermatologist, and, in 1841, founded the Hospital for Diseases of the Skin. He published a course of lectures on these diseases in the *Medical Times* in 1846. Mr. Holmes Coote was the son of an eminent Chancery barrister, and was articled at St. Bartholomew's Hospital to Sir William Lawrence. He was elected assistant-surgeon to the hospital in 1852, and in 1855, at the commencement of the Crimean war, went with other surgeons to Asiatic Turkey, as volunteers, to assist in the establishment of hospitals, and in the treatment of the wounded in the war. He returned in 1857, was in 1858 appointed assistant-surgeon to the Royal Orthopædic Hospital; and, in 1863, surgeon to St. Bartholomew's. His capacity for work and mental powers were, however, failing him, and he was compelled at last by bad health to retire from his professional duties. Paralysis ensued, and he died in December, in the fifty-ninth year of his age. Mr. Coote gained the College triennial prize in 1843, for an essay on the Anatomy of the Fibres of the Brain and Spinal Cord, wrote several papers in the Society's "Transactions," works on the "Homologies of the Skeleton," on "Joint Diseases," &c., and contributed several articles to "Holmes's System of Surgery." In concluding the obituary, the President alluded to the loss of the Rev. Adam Sedgwick, Woodwardian Professor of Geology, Cambridge, the senior Honorary Fellow of the Society, who died in January, at the advanced age of eighty-eight; and to Pierre C. A. Louis, honorary physician to the Hôtel Dieu, one of the Foreign Honorary Fellows of the Society, of whose important career, character, and professional labours he entered into considerable details. The President thanked the Society for the honour he had enjoyed as their President, which he esteemed as the greatest distinction of his professional life, and after acknowledging how much he owed to the secretaries for the cordial support they had afforded him, concluded by expressing his satisfaction at being succeeded by a gentleman of high character and professional eminence, who would worthily maintain the distinguished position of the Society.

Votes of thanks were carried to the President, the retiring hon. librarians, and Mr. Thomas Smith, the retiring hon. secretary, for their valuable services during their terms of office, and especially to the President and Mr. C. Brooke, for their assiduous care and attention in the superintendence of all the building alterations connected with the meeting room and library.

Thanks were returned by the several officers mentioned, and the Society adjourned.

The following officers and Council were declared to be elected for the ensuing year:—President: Dr. C. J. B. Williams, F.R.S. Vice-Presidents: Dr. A. W. Barclay, Dr. Sieveking, Mr. White Cooper, Mr. J. A. Kingdon. Treasurers: Dr. Wegg, Mr. John Birkett. Secretaries: Dr. Symes Thompson, Mr. Cooper Forster. Librarians: Dr. Sibson, Mr. Timothy Holmes. Other Members of the Council: Drs. Frederick Davies, H. J. Sanderson, C. J. Hare, J. W. Ogle, Owen Rees; Messrs. William Adams, Thomas Bryant, W. O. Chalk, J. T. Clover, and Edwin Saunders.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEB. 14TH, 1873.

MR. PRESCOTT HEWETT, PRESIDENT, IN THE CHAIR.

THE PRESIDENT took the chair in his official capacity for the first time, and proceeded to deliver the inaugural address. Having recapitulated the good work done already at the Society, and adverted to the fame of his predecessors, Mr. Hewett addressed himself to private practitioners, and showed how they were enabled "to catch mischief at its very dawn, to follow it in its development, and to watch the various evils to which it may ultimately lead." The absolute and relative importance of watching such symptoms as epistaxis and the comparatively frequent occurrence of thrombosis, was dilated upon, and the varieties of the latter were felicitously illustrated by numerous examples. The speaker concluded a most eloquent address by remarks on the after-effects of the syphilitic poison in their multifarious forms, and on this subject also showed practically that examples are often better than precepts.

Dr. GREENHOW proposed a vote of thanks to the President for his address, which was carried unanimously, and acknowledged.

Mr. THOMAS SMITH exhibited a boy five years of age without arms, but otherwise well developed.

Mr. ARNOTT exhibited a patient in whom a soft cancer in the parotid region had been treated by caustics, no return of the disease having occurred after the lapse of four years.

Mr. THORNTON then read brief notes on a case of Thyrotomy, the discussion on which was by general consent reserved until Dr. MORELL MACKENZIE had read a record of cases of thyrotomy, chiefly bearing upon a paper communicated by Mr. Arthur Durham to the Medical and Chirurgical Society some months ago. The speaker proceeded for about ten minutes, when Mr. BARWELL rose to order, and was followed by Mr. DURHAM; and the CHAIRMAN, after making some stringent observations on the personal proclivities exhibited in Dr. Mackenzie's paper, suggested its withdrawal, which course was at once endorsed by the Society. A motion to adjourn was rejected.

Mr. CROFT, commencing a discussion on Mr. Arnott's paper, asked the author the special grounds for his diagnosis.

Mr. CALLENDER inquired the age of the patient, and thought that it was well not to be too sanguine as to the result of a single case.

Mr. ARNOTT, in reply, said that the patient was thirty-five years old, that he formed the diagnosis from the nature of the tumour, which was large, soft, and lobulated, without defined boundaries, with distinct evidence of cells, having oval nuclei with nucleoli. It must be remembered that softer forms of sarcoma are quite as malignant as true carcinomata, and that in this case all consulted were agreed as to the malignancy of the disease.

Mr. Hulke, Mr. Barwell, and Mr. De Morgan made brief remarks, and the Society adjourned.

BEQUESTS, &c., TO MEDICAL CHARITIES.—Miss Hannah Brackenbury, of Brighton, formerly of Manchester, bequeathed £10 000 for a hospital in the latter city. Miss Catherine A. Williams, of Wheatfields, bequeathed £1000 to the Worcester Infirmary. Mr. Charles Longman bequeathed £500 to the West Herts Infirmary. The Hospital for Diseases of the Throat, Golden-square, has received £100 from "Anonymous."

Reviews and Notices of Books.

General and Differential Diagnosis of Ovarian Tumours, with Special Reference to the Operation of Ovariotomy. By WASHINGTON L. ATLEE, M.D. Philadelphia. pp. 482.

PROBABLY at no time in the history of gynæcology has so much interest been shown in ovarian pathology as in our day; certainly there has never been so much good, earnest, sound work as in the past half-century; and it is not too much to say that greater advance has been made in this department within the last fifty years than in all preceding centuries. In fact, as regards pathology and diagnosis, there is, we may say, but little now left that is discoverable; and though it may be that we have still much to learn in regard to treatment, yet here we are inclined to think that future advance will be the result rather of the teachings of experience in matters of detail than of any great change in general principles. No better evidence could be afforded of the great advance made in ovarian pathology and therapeutics—at least, so far as it relates to ovarian tumours—than is shown by a comparison of the work now under notice, together with the works of Peaslee and Spencer Wells, with those of fifty years ago. The former teems with facts, original observations, and thoroughly practical or clinical investigation, aided by all the resources of modern medical science, physiological and pathological, while the latter are just as full of conjecture, imagination, and, we might add, empiricism. We question whether in any branch of medicine or surgery anything like the same progress has been made—indeed, we hope we do not take a merely specialist's view of the matter when we say that we think the obstetrician or the gynæcologist can honourably boast of quite as brilliant achievements in his department as can be named by representatives of either of the two other sections of medicine.

The work before us is creditable to its author, honourable to the profession, and conservative in the highest degree to humanity. It is thoroughly practical, but this does not make it one whit less scientific or speculative. It is, however, essentially a clinical treatise, for cases are cited in abundance to illustrate every point, whether of practice or theory, and one great charm of the work consists in the perfect candour and frankness with which errors are confessed—those errors which are inseparable from early practice and limited experience, and which tend more, perhaps, than any number of successes to teach and advance the practice of our art. As our author remarks, "Mistakes teach most valuable lessons, and, when discovered, are not likely to be repeated." We are not sure that we quite endorse the latter statement, for with regard to abdominal tumours, though no doubt experience perfects diagnosis as far as possible, yet we question whether absolute certainty is ever attainable. Certain it is that the greatest authorities frequently make mistakes, and we believe Dr. Atlee would be the first to admit it. "In several cases of great difficulty of diagnosis, the author was enabled to arrive at a satisfactory result *only* by the examination of the fluid." This quotation is a telling commentary on the value of the so-called diagnostic signs. In reality there are no signs which absolutely distinguish ovarian from other abdominal tumours, for all the ordinary symptoms of the former may occur in connexion with the latter.

The volume opens with a chapter on the general diagnosis of ovarian tumours, in which all the ordinary symptoms of that disease are faithfully pourtrayed and illustrated with well-told cases. Then follow chapters on the differential diagnosis of the several abdominal and pelvic tumours, including ascites, peritoneal cysts, or cysts

of the broad ligament, which latter it is affirmed may be readily diagnosed by the character of the fluid, which is described as "a beautifully clear, transparent fluid, which does not coagulate either by heat or nitric acid." Other cystic tumours of the abdomen—hepatic, renal, uterine, peritoneal, inflammatory cysts, and acephalocyst hydatids, are also carefully described. The diagnosis of pregnancy and of the several forms of uterine tumour, as well as malignant tumours of the abdomen, are next reviewed; and in all illustrative examples are given, which are all the more telling from the fact that under many of the headings are cases where errors of diagnosis were rectified only by exploratory operations. From our own experience, and what we have seen and heard of the practice of others, we can confirm most of the conclusions at which the author has arrived; and in regard to treatment there seems to be little or no difference between his own and that which, in the main, is followed by the leading ovariotomists in this country.

One of the most important chapters in the work is the one at the end, written by Dr. Drysdale, of Philadelphia, on dropsical fluids of the abdomen, including every kind of fluid that can be drawn from the belly; their physical properties, chemical analysis, microscopic appearance, and diagnostic value, based on the examination of several hundred specimens. This chapter is full of original investigation, and reflects the highest credit upon its author. It is, moreover, of great practical value, for, according to Dr. Drysdale, it is possible in almost every case to arrive at an exact diagnosis by the tests which he has here described. Many of these are quite new, and their accuracy can therefore only be gauged by actual experiment and observation. It behoves all those, then, who are called upon to treat these several abdominal tumours to study this chapter carefully, in order that the tests here described may be either confirmed or rejected. Taking the work as a whole, it is one that we cordially approve, and recommend to the attention of every obstetric physician or surgeon.

A Handbook of Medical Electricity. By HERBERT TIBBITS, M.D., L.R.C.P. Lond., Medical Superintendent of the National Hospital for the Paralysed and Epileptic, Medical Officer for Electrical Treatment to the Hospital for Sick Children, Great Ormond-street, London. J. and A. Churchill. pp. 140. 1873.

THIS work fills up a hiatus in the literature of medical electricity. It purposes to teach (to use the words of the preface) "the busy practitioner not only when to use electricity, but in explicit and full detail how"; and in "moderate bulk to contain only what it is essential to master." Dr. Tibbits claims no originality, but in one sense he is decidedly original. He has had the good sense to assume that his readers will have some knowledge of electricity and electro-physiology, and that the standard text-books on these subjects will be within their reach. He has had the courage, therefore, to avoid placing between his reader and the proper subject of his work the thick padding of preliminary chapters on electricity and electro-physiology, which make so portentous and unsatisfactory an addition to most works on medical electricity. He enters at once upon the particular subject of his book, and his object has been to give the results of the best work. To this end he has availed himself freely of the large experience of the electrical room of the National Hospital for the Paralysed and Epileptic.

The work is what it professes to be, and is a handbook in the best sense of the word. In the chapters on electro-medical instruments and the application of electricity, the practitioner will find all that is necessary for his guidance in these matters; and in the chapters on electricity as an aid to diagnosis and in electro-therapeutics he will have a well-considered summary of electrical practice. The last two chapters, however, might well be extended somewhat in a subsequent edition. Too great compactness is a less evil than too great diffusiveness, but it is not every mind that can digest matter in the state of concentration in which Dr. Tibbits presents his. The work is abundantly and excellently illustrated, and if, in respect of instruments, the text should fail to convey a clear idea, the illustrations come to the reader's assistance. The work is noteworthy, in addition to its other advantages, for an excellent synopsis and a good index. The book, indeed, answers thoroughly to the author's description, that he has "throughout endeavoured to keep constantly in view the practitioner rather than the theorist, especially in point of details which are of importance in order to secure the successful application of electricity, and to ensure (a not insignificant matter in this respect) the comfort of the patient."

OUR LIBRARY TABLE.

How I found Livingstone. Travels, Adventures, and Discoveries in Central Africa; including four months' residence with Dr. Livingstone. By HENRY M. STANLEY, Travelling Correspondent of the *New York Herald*. Second Edition. 8vo; pp. 736. London: Sampson Low and Co. 1872.—The time has now come when Mr. Stanley's travels may be discussed on their merits alone. Only a passing reference is now required to the discords aroused by them. Dr. Kirk did well to treat Mr. Stanley's unmeasured attacks upon him with contemptuous reticence, for the course pursued by Mr. Stanley in Zanzibar, at the beginning of his expedition, according to his own statements, and the attitude he then adopted towards Dr. Kirk, would have justified the latter gentleman in restricting his courtesy towards Mr. Stanley within much scantier limits than he appears to have done. Dr. Livingstone himself has now dispersed the distorted fancies which Mr. Stanley, with unhappy imaginative and verbal facility, had conjured up between the discovered traveller and Dr. Kirk and other friends nearer home. Setting aside these matters, now, it is to be hoped, receding fast into forgetfulness, Mr. Stanley's book is one of rare interest. The special interest of the book to medical readers is in relation to the recent movements of cholera in East Africa. Although the directions of the principal trade routes in East Africa were pretty well known, these routes had been described by previous travellers as bare and difficult tracks, through localities for the most part sparsely populated, the different populations being separated by wide expanses of swamp, jungle, plain, or forest. It was known that small-pox travelled along these routes with terrible frequency, making huge havoc among caravans and villages, but it was not clear how cholera could pass readily from place to place and exist long in epidemic form, assuming that the transmission of this disease was by some property of infectiousness peculiar to the discharges of the sick from it. Mr. Stanley's story removes all difficulties on this score. He describes, on the route he travelled inland from Bagamoyo, certainly all the particular discomforts and horrors we are accustomed to attribute to Central African exploration, but he also describes a well-beaten and much-frequented trade-route, passing among numerous and thronging populations, living under conditions as favourable for the development of cholera as of small-pox. How far his descriptions may be confirmed by more sober pens will remain to be seen, but meanwhile, in relation to geographical pathology, Mr. Stanley's work has a present and especially noteworthy interest.

Project of an Instrument for the Identification of Persons, for use in Military Establishments, Police Offices, &c., and for Physiological and Artistic Research. By JOSEPH BONOMI. London: Longmans, Green, and Co. 1872.—The proportional measure of the human figure given by Vitruvius is founded upon what is deemed a natural law—viz., that the measure of the height of the body is equal to that of the distance between the extremities of the fingers of the outstretched arms; but this is to be regarded rather as what the normal proportion should be than what it is. Every individual of the human family must belong, however, to one of three classes—that class in which the measure of the outstretched arms exceeds the height, that in which the height exceeds the measure of the arms, or that in which the two are exactly equal. Guided by this law, the author of this pamphlet points out how, by the aid of a simple apparatus, the means for identification of any adult person may be obtained. To make the description of this, and its method of employment, intelligible, diagrams are required, and these are furnished in the pamphlet before us. The author says if every police and military station were furnished with one of these instruments, the identification of a person previously measured could be effected at any place, and a mass of information respecting the laws of growth, and the influence of trade or occupation on those laws, brought out and defined, as well as other physiological particulars. As regards criminals, photography obviously affords a great aid to identification, to say nothing of scars and marks. At the London recruiting-office there was, and probably still is, a very elaborate and ingenious machine for measuring the trunk and extremities—in fact, every eight inches of the human body. It was, we believe, the invention of a Glasgow tailor, and very exact results are attained, although its very elaboration probably prevents its employment.

Pamphlets on Public Health Subjects. By T. J. DYKE, F.R.C.S. Eng., Health Officer, Merthyr Tydfil.—The author of these useful pamphlets may be fairly dubbed the Nestor of sanitary science in the provinces, for we know of no man who began to work practically for the prevention of disease so early, or who has persistently and continuously carried out the work in his own district with greater care and assiduity. Hence the pamphlets above-named are valuable, do not detract by brevity, and are well worthy a perusal by all *in esse* or *in posse* medical officers of health for rural districts.

Foreign Gleanings.

IDENTITY OF CASEIN WITH ALKALI-ALBUMIN.

IN a recent number of the *Journal für practische Chemie*, F. Soxhlet discusses the question whether casein is identical with the so-called alkali-albumin which is obtained by the action of alkalis on albumin. Hoppe-Seyler has collected several arguments in support of the view that the two substances are different. Of these the most cogent is that the smallest quantity of free acid precipitates alkali-albumin, whereas the reaction of milk is often distinctly acid in the normal state. It is, however, well known that the presence of neutral sodium phosphate in a solution of alkali-albumin renders it necessary to add a considerable quantity of acid in order to produce precipitation. Soxhlet has investigated this point, and finds that in such a solution precipitation does not commence until the whole of the neutral phosphate is converted into acid phosphate. A solution which contains both neutral and acid phosphates exhibits an amphoteric reaction—that is, it affects both blue and red litmus, the alkaline reaction being best perceived when the liquid is warmed, inasmuch as violet solutions of litmus always assume temporarily a bluer shade when heated. Soxhlet finds this amphoteric reaction in milk, and therefore regards it as containing both neutral and acid phosphates. Its coagulation by rennet he ascribes, as most chemists do, to the formation of lactic acid, and points out that alkali-albumin can be coagulated by rennet if milk-sugar has previously been added.

Other points of difference are discussed with equal plausibility, and it is difficult to refuse assent to the author's conclusion, that there is at present no evidence of chemical difference between casein and alkali-albumin.

CARBONIC OXIDE HÆMOGLOBIN.

Zuntz (*Pflüger's Archiv*, v. 584) has confirmed the statements of Donders with regard to the instability of this curious compound. He finds that when blood saturated with carbonic oxide is exposed in a vacuum to temperatures ranging from 37° to 60° C., the carbonic oxide is entirely expelled, and ordinary reduced hæmoglobin, capable of direct combination with oxygen, obtained. The gas is not given out all at once, but slowly, and its complete removal requires some time. The author finds that a similar thing is true of solutions of bicarbonate of sodium, which, in a vacuum, slowly evolves carbonic acid. This is a very interesting observation, and one capable perhaps of physiological application.

One point of doubt should be mentioned. The author, in analysing the gases obtained, absorbed the oxygen by potassium pyrogallate. Now, when oxygen is absorbed by this reagent, small quantities of carbonic oxide are always produced. This may not sensibly affect the results, but it would obviously be better to use some other method of analysis.

INCOMPLETE LUXATION OF THE ELBOW OUTWARDS.

This case occurred in the wards of Dr. Dénucé, at the Hôpital St. André, of Bordeaux, and is recorded in the *Bordeaux Médical* of February 2nd. The luxation had taken place in a fall on the hands. On examination, the forearm was seen to have been entirely carried outwards; the sigmoid cavity of the cubitus had not abandoned the lower end of the humerus, but, taking an outward direction, it embraced the condyle instead of the trochlea. As to the radius it had followed, under the influence of the shock, the same direction as the cubitus, but it had been carried upwards and forwards by the contraction, or simply the tonicity of the pronator muscles, and it had taken a situation in front of the condyle of the humerus, where it was distinctly to be felt rolling under the fingers when movements of pronation or supination were communicated to the forearm. The diagnosis was quite clear, and the only possible mistake was that of confounding the case with one of luxation outwards and backwards; but the position of the olecranon at its usual height, the absence of the lower extremity of the humerus in the articular fold of the skin, and the obvious position of the sigmoid cavity embracing the condyles of the humerus, excluded such a hypothesis. Reduction was performed seventeen hours after the accident in the following manner: The patient was seated on a chair; extension was effected by two assistants on the hand and lower end of the patient's forearm whilst counter-extension was made on the stump of the shoulder. A folded handkerchief was passed around the lower portion of the arm, so as to pull the humerus backwards and outwards. Counter-extension and extension being in operation, flexion was suddenly performed, and a cracking noise was heard as the articular extremities resumed their normal position. The use of compressing bands, resolving compresses, and passive exercise, soon removed all traces of swelling and ecchymosis, and the patient recovered the entire use of his arm.

FORCIBLE CATHETERISM IN RETENTION OF URINE.

At a recent meeting of the Medico-Chirurgical Society of Bordeaux, Dr. Bitot advocated the use of forcible catheterism in retention of urine, preferably to hypogastric puncture, external urethrotomy, &c., and related several successful cases in support of his views. In performing the operation he passes a finger into the rectum, and makes use of a steel catheter of rather large size, ending in an olive-shaped head at the vesical extremity and in a worked plate at the other extremity, and having a deep groove in all its length. It is more rigid than the sounds ordinarily used for the purpose; the surgeon has a stronger hold, and the groove permits him to rest the instrument on the finger introduced into the rectum, whilst it allows the urine to run out.

THE LANCET.

LONDON: SATURDAY, MARCH 8, 1873.

THE advertisement columns of *The Times* of the 25th ult. contain a striking illustration of the utter confusion into which local sanitary authorities have been thrown by the mode of initiation of the Public Health Act adopted by the Local Government Board. The rural sanitary authority of the Tendring Union, in the county of Essex, advertises that on the 15th day of March it will proceed to the election of a medical officer of health, at a salary of £200 a year, "to include all expenses and disbursements." The advertisement states that the duties of the office will be those contained in the Order of the Local Government Board of Nov. 11th, 1872; and, further, that "the gentleman elected will be required to make a complete sanitary survey, including the sewage-system and water-supply of the whole district, and to report thereon, and also generally on the condition and requirements of the district, within three months after his appointment." The Tendring Union, it may be stated, has an area of 81,122 acres, and a population of about 20,000. Following this advertisement is another, from the same rural sanitary authority, for an inspector of nuisances. The salary to be given to this officer is £150 a year, including all travelling and other expenses, the holder having to keep a horse and vehicle, and to devote his whole time to the duties of his office as prescribed by the Sanitary Acts and the rules and regulations of the Local Government Board. The advertisement states, further, that "the officer elected will be required to make a complete sanitary survey, including the sewage system," and so forth, in precisely the same terms as the medical officer of health is required to make a like survey!

The entire confusion shown by the foregoing advertisement to exist in the minds of the rural sanitary authority of the Tendring Union as to the respective duties of a medical officer of health and an inspector of nuisances, notwithstanding the orders of the Local Government Board as to these duties, is a significant illustration of the mischief which is being wrought by entrusting the initiation of the Public Health Act solely to inspectors who had no previous acquaintance with the subject matters of the Act. It is significant, moreover, of a tendency in the sanitary policy of the Board which has hitherto not attracted attention, and throws a new light upon certain of the proceedings of the general inspectors. The phrasing of the advertisement for an inspector of nuisances of the rural authority of the Tendring Union, and that of the advertisements of other sanitary authorities for the same officer which have recently appeared in the *Local Government Chronicle*, now make it obvious that the drift of the policy of the Local Government Board, with respect to this officer, is to make him an almost wholly independent officer in his own sphere, except in relation to the sanitary authority, and to give to his opinion in respect of nuisances equal weight with that of the medical officer of health. Sanitary authorities are apparently to be encouraged to take a course which will lead to a conception of nuisances being largely adopted among them such only as presents itself to the imperfectly educated and generally untrained minds of persons of the class from whom inspectors of nuisances are commonly elected. The relationship between the inspector of nuisances and the medical officer of health which has hitherto been found essential to the intelligent working of the first-named officer in view of the prevention of disease is thus largely to be set aside, and a spirit of antagonism fostered between the two officers which would not be the least evil brought about by the arrangement. We appear to be on the eve, in fact, of a reign of inspectors of nuisances as interpreters of nuisances over a large portion of the country. It might have been thought that the abortive results which followed the reign of the engineers as interpreters of nuisances under the General Board of Health would have served as a caution to the Local Government Board against discouraging medical guidance in questions which are essentially questions of disease and its production, particularly when the agent it now seeks to set up in this function of interpreting nuisances cannot even plead the incidental knowledge of hygiene which an engineer almost necessarily possesses. It would be more reasonable to assign to the opinion of an ordinary druggist equal weight with that of a practising physician as to the effects of drugs upon the system in health and disease, than to assign to the opinion of an inspector of nuisances as to nuisances the same value as that of a medical officer of health.

Regarded from this point of view, Mr. CORBETT's having recourse at Macclesfield to a local inspector of nuisances for assistance in advising the rural sanitary authority as to the limitation of an outbreak of scarlet fever has a graver significance than we were at first inclined to attribute to it. It evidently now must be taken to indicate something else than an error of judgment; it must be held, indeed, to show a disposition on the part of the general inspectors of the Local Government Board to regard the experience of an inspector of nuisances as all-sufficient, not merely in respect of ordinary nuisances, but also in respect of states of disease which may exist in connexion therewith. It is certainly natural that the general inspectors, who themselves have no technical knowledge of health questions, should elevate the lay element of public health work at the expense of the medical element as a mere matter of consistency; but what are we to think of the miserable politico-sanitary peddling on the part of the Local Government Board which admits of such a course? We have good reason to know that boards of guardians generally were craving light as to the best practical means of carrying out the duties imposed upon them as rural sanitary authorities by the Public Health Act. They craved for light upon the particular application of those duties to their particular district, and the simplest, most economical, and best-fitted means of dealing with unwholesome conditions therein. They rightly held that the Government ought to give them the light; but what has happened? The light derived from the large, accumulated practical experience of the former Health Department of the Government—now the Medical Department of the Local Government Board—as to the sanitary requirements of rural

districts, has been withheld, and the initiation of the Public Health Act has been undertaken, as if almost all the essential requirements of sanitary organisation had to be studied anew. Thus the general inspectors of the Local Government Board, wanting equally with the boards of guardians in that practical knowledge of the subject they had to advise upon, have, after the fashion of the blind leading the blind, fallen themselves and caused the boards to fall into a slough of contradictions, inconsistencies, and futilities. A feeling of irritation and of antagonism against the Public Health Act has thus been largely and most needlessly provoked amongst boards of guardians. The new sanitary light of the Local Government Board, indeed, like that of Ralpho's,

> "Is a dark-lanthorn of the spirit,
> Which none see by but those that bear it."

THE question of Abiogenesis is one that has long been investigated with keen interest by biologists; and some recent publications have aroused the attention of physiological inquirers, and caused them to go over the old and to institute new sets of experiments and observations. Dr. W. ROBERTS has entered the arena, and in him Dr. BASTIAN will find "a foeman worthy of his steel." At a recent meeting of the Manchester Literary and Philosophical Society, Dr. ROBERTS exhibited some preparations and experiments bearing on the question of biogenesis. He stated that in the last two years and a half he had performed over 300 experiments. His results supported the conclusion that the fungi, monads, and bacteria which make their appearance in boiled organic mixtures are not due to spontaneous evolution, but arise exclusively under the influence of pre-existing germs or ferments introduced from without. His method of experimenting consisted chiefly in exposing organic solutions and mixtures to a boiling heat in glass flasks whose necks had been previously tightly plugged with cotton-wool. Two modifications of the experiment adopted by him, with the view of guarding against certain possible sources of error—such as the risk of reflux of air into the flask at the moment of sealing it, and the ensuring that the entire contents of the flask are effectively exposed to boiling heat,—are described. We concur with him in regarding the last especially as important. Some of the recorded experiments conducted by physiologists with the view of demonstrating the power possessed by the lower organisms to retain their vitality when thoroughly desiccated, and under other exceptionally adverse conditions, have appeared to us of a doubtful character from a similar circumstance to that indicated by Dr. W. ROBERTS. When fragments of any substance are introduced into a fluid or infusion, particles of foreign matter and germs of various kinds may be introduced at the same time, the destruction of which by heat requires very great care. However, to proceed with Dr. ROBERTS's results. He says that simple filtered infusions of animal and vegetable tissues, boiled over the flame for five or ten minutes, in flasks previously plugged with cotton-wool, remained permanently barren; and he adds that this result was absolutely invariable. More complex mixtures—milk, neutralised or alkalised infusions of vegetable and animal tissues, mixtures containing fragments of animal and vegetable substances, or cheese—yielded variable results: monads and bacteria frequently appeared in abundance, but not fungoid growths. These apparently contradictory phenomena the author inferred were due to the ineffective application of the heat in the process of direct boiling over a flame. The object of his second modification of the experiment was, consequently, to overcome this source of error. And more constant results were afterwards obtained; for the flasks remained almost always permanently barren, the few exceptions being traceable to some imperfections in the conduct of the experiment. In the exceptional cases, where bacteria and monads with putrefactive changes made their appearance on these occasions, and where pieces of vegetable or animal substances had been previously introduced into the flasks, he found that, if the precautions were taken to employ only finely comminuted pieces of such substances, other results were obtained on repetition of the experiments, for the flasks then remained permanently barren. It is but right to state that Dr. BASTIAN has replied to the doubts raised by Dr. WM. ROBERTS, by saying that it is not the fact that flasks cannot be sealed during ebullition, as he can demonstrate; and that it was expressly mentioned in Dr. BURDON-SANDERSON's letter to *Nature* that care was taken "to continue the ebullition to the last." As regards the effective exposure of the entire contents of the flask to boiling heat, Dr. BASTIAN feels quite confident that in his experiments no portion of the inner surface of the glass escaped the scathing action of the boiling fluid. The crucial significance of some of the experiments by Dr. ROBERTS is very properly dwelt upon by him. A plug of cotton-wool acts as an absolutely impervious filter to the solid particles of the air, while it permits a free passage to the gaseous constituents. When one of these experiments is effectively performed, the fluid or mixture in the flask may be exposed to the full influence of light, of warmth, and of air, and yet remain permanently barren; but let the plug of cotton-wool be withdrawn for a few minutes, or a single drop of water, however pure and well filtered, be added, and all is changed—the clear solution becomes turbid from the development of bacteria and monads, or a mass of mildew soon covers its surface. He concludes, therefore, that the biogenic power of the atmosphere resides in its dust, and not in its gaseous ingredients; but as to the exact nature of that biogenic power—whether it be a specific germ or ferment—no sufficient evidence has yet been adduced. The January number of the *Quarterly Journal of Microscopical Science* likewise contains a review of Dr. BASTIAN's book, wherein the reviewer every now and then threatens to reach the point of ebullition as he warms, somewhat unnecessarily in our opinion, to the work of estimating the scientific claims and reputation of the author of "The Beginnings of Life." Putting all this aside, however, as irrelevant to the subject as it comes before us, and mainly confining ourselves to the bare statement of alleged facts and observations, we may say that the reviewer concludes his article—the gist of which is to prove that Dr. BASTIAN has not made out a *prima facie* case—by stating that he has many times repeated one of the experiments described by Dr. BASTIAN with an infusion of turnip and a fragment of cheese; and that, although care was taken to follow the prescribed

directions, the results were at variance with those obtained by Dr. BASTIAN. In fact, the reviewer still holds to the substantial correctness of the view that

> "Like genders like: potatoes 'taters breed;
> Uncostly cabbage springs from cabbage seed."

THE discussion in the House of Commons on Tuesday evening last, resulting in the appointment of a Royal Commission "to inquire into the condition of, and certain practices connected with, the commercial marine of the United Kingdom," is pertinent to matters medical, in that it bears (*directly*, according to our belief) on the sanitary condition of seamen. Some seven or eight years have now elapsed since we first pointed out the important fact that no vessel, however seaworthy, can be independent of her crew; that seamen as well as ships are sent afloat in an unseaworthy condition; and that hence any legal enactments having reference to the safety of ships should provide for the physical efficiency of the crews that man them. It is perfectly well known that sailors sign articles at the London shipping offices as well as at the out-ports with ruptures, diseased hearts, and half-healed wounds, lay up soon after the ship is fairly at sea, give additional labour to the rest of the watch, and by the subtraction of their manual aid endanger as a matter of course the safety of the ship. It appears to us, indeed, that the author of "Our Seamen" has lost sight of a very material item in the history of shipwrecks when he omits any records as to the physical state of the men. Having regard to the scarcity of seamen at the present time, to the ease with which many serious diseases may be concealed during the hasty interview that occurs when the articles are signed, and to the fact that sailors are proverbially careless and insanitary in their habits, it is not too much to say that at least five, and probably not less than ten, per cent. of all the men who ship are physically unfit for duty, and would be rejected at the most cursory medical examination. Has it ever occurred to Mr. PLIMSOLL to consider how much danger is due to unseaworthiness of vital as well as of inanimate material? In both cases, it must be remembered, when the ship goes down the tale cannot be told. No one at the shipping office knows how many able-bodied and how many diseased men went to form the complement of the ship's crew; and it is vain to argue that any sort of vessel, however perfect in her build, her material, and all her belongings, can be even comparatively safe if she is manned insufficiently or incompetently. Our contemporary, the *Pall Mall Gazette*, reminded the public some little time ago of the existence of a clause in the Merchant Shipping Act, 1867 ("permissive and therefore worthless"), which enacts that an official medical inspector may, at the request of the owner or captain, examine any seaman or seamen at the munificent charge of 2*s.* per head. It appears therefore that, as the law now stands, the State will become responsible for the healthy condition of a ship's crew before signing articles in consideration of a sum (varying of course with the number of the men shipped) of from thirty to sixty shillings. This, as an Imperial offer, is liberal; but its results are *nil*, because those owners who are interested in the safety of their ships and crews have as yet failed to see the utility of a medical inspection. But the question of seaworthiness of men as well as of ships ought not to be forgotten when the Commission commences its labours; for, doubtless, there are many witnesses who could and would tender valuable evidence showing the very insanitary condition of many of our sailors at sea, and, *a fortiori*, the very unsafe condition of the ships that they are supposed to man and manage efficiently.

Medical Annotations.

"Ne quid nimis."

THE TREATMENT OF CALCULUS.

WE wish to direct our readers' attention to a clinical lecture delivered by Sir Henry Thompson at University College Hospital last week, the report of which has had the advantage of his personal revision, and may therefore be safely taken to represent that distinguished surgeon's views on a most important question. This question is one which has of late especially much exercised both English and continental surgeons, and has excited a considerable extra-professional interest: it is, whether, in the presence of a calculus, chronic degeneration of the kidney can in all cases be diagnosed; and if so, what is the best treatment to be adopted under the circumstances. We do not propose to recapitulate Sir H. Thompson's arguments, or to examine his statements critically on the present occasion. Statements thus made as the result of a very large experience are worthy of all attention, and it would be well for any who feel inclined to dispute Sir H. Thompson's views to bring forward the facts upon which they base their opinions.

CONSTANT WATER-SUPPLY FOR LONDON.

A PARLIAMENTARY Blue-book lately issued contains the Minutes of Proceedings of the Board of Trade Commission which was appointed in July last to settle the regulations for a constant supply of water to the metropolis, under the Act of 1871. Having commented upon those regulations at the time of their publication last year, it is unnecessary for us now to wade through the evidence, speeches of counsel, and discussion, reported in the Blue-book. We may remark, however, that the aspiration of the chairman of the Commission (Lord Methuen), in closing the inquiry, "I hope that the result will be that we shall have a constant, and not an intermittent, supply," does not appear to be at present in a very likely way of realisation. The regulations have been for a long time under consideration by the metropolitan vestries and district boards, and, so far as we can learn, the conclusion almost universally arrived at is unfavourable to the adoption of the regulations. Finally, the Metropolitan Board has, in the strongest manner, condemned them, and declines in consequence to avail itself of its power under the Act to require the water companies to give a constant supply. The resolution adopted by the Board in this matter is based upon "the imperfect state of legislation by which no real and effective constant supply is secured, the exclusion of the Board from any jurisdiction which could be exercised in favour of the consumers, the great cost which the regulations would impose upon the owners of property, and the almost unlimited authority placed in the hands of the water companies." All which is to be represented to her Majesty's Government, who are to be urged to legislate anew, and more satisfactorily upon the whole question. This is what our long and patient waiting has come to. A Royal Commission, and nobody knows how

many other inquiries, with a new Act of Parliament to boot, have succeeded in accomplishing nothing better for Londoners than a series of regulations which everybody who speaks on behalf of the consumers utterly repudiates as mischievous and impracticable. If this be what modern legislation entails, clearly it is hopeless to look to Parliament for a remedy, and we may as well try to resign ourselves to the thraldom of the water companies once and for all.

WINTER SANITARIA.

WHAT is the best winter residence for the invalid? is a question which has been lately put and variously answered in the daily press. As usual, each correspondent has his personal experience to cite in favour of this or that particular health-resort, and, as usual, another correspondent has tried the place and derived from it no benefit. There are few subjects on which it is so difficult to lay down a general law as that of the therapeutic effects of climate. Of all remedial agents it is the least certain, as being the most subtle in its operation. Precisely the same meteorological conditions are to be found in England as constitute the attraction of certain foreign health-resorts, but, in the case of English patients, the latter succeed where the former fail. Why? Because the estrangement from the scene of work, even from the quickly-recurring postal deliveries, gives the foreign residence a moral advantage not possessed by its English counterpart. As to the climate of Sicily, we agree with those who speak favourably of its virtues; certainly it is less trying, as a rule, than the Riviera. But, as Dr. Dunbar Walker recently proved in our columns, Egypt is the queen of countries for the relief not only of phthisis, but of rheumatism, whether chronic or subacute. The latter disease, as Furstenberg points out, is unknown among the natives, and, as a well-known French physician has shown, the neuroses which terminate in melancholia or homicidal and suicidal mania are almost equally rare. The pure desert air works rapidly and effectively for the phthisical or neurotic invalid, while the arrangements for his comfort and therapeutic care in the hotels and baths reflect much credit on the advisers of the Khedive.

SMALL-POX EPIDEMIC AND THE EAST END OF LONDON.

AT the intelligent request of Mr. Newton, one of the members of the Mile-end Old Town Board of Guardians, the following interesting statement of deaths from small-pox in East London during the epidemic has been laid before the Board. The epidemic extended over two years and a half.

	Population.	Deaths.
Bethnal-green ...	120,200 ...	652
Shoreditch ...	127,160 ...	607
Poplar ...	116,227 ...	433
Mile-end Old Town...	93,146 ...	262
Whitechapel ...	76,332 ...	257
Stepney ...	57,578 ...	148
St. George's, East ...	48,235 ...	103

Mr. Newton's object was the creditable one of refuting some severe reflections of Dr. Seaton's to the effect that the unions of Bethnal-green and Mile-end Old Town had been more severely visited than their neighbours in consequence of their "shaking hands with the Anti-vaccination League." Mr. Newton denied this charge at the Board, and declared that the guardians did all they could to persuade the people to have their children vaccinated short of having them summoned, and, with evident satisfaction, pointed out that Poplar, which had been much lauded by Dr. Seaton as an example to the east end of London, had suffered 30 per cent. more deaths than Mile-end. We gladly observe Mr. Newton's anxiety to exonerate the Board of a responsibility for 2462 deaths, nearly all of which might have been prevented by vaccination and re-vaccination.

HOSPITAL STOPPAGES.

ALTHOUGH we concur in Mr. Cardwell's view that a distinction should be made between soldiers undergoing treatment for disorders that are self-induced and those whose maladies are directly attributable to the execution of their military duties, we very much regret that he has not adopted another course in redressing the hardship as it affects the latter class. Surgeon-Major Robinson advocated that there should be a marked difference in the amount of hospital stoppage in favour of the well-conducted soldier. According to Mr. Cardwell's reply to a question, however, it seems that he proposes, under certain circumstances, to deprive the soldier of his pay altogether. This is sure to be regarded in the light of a punishment—a fine, in fact; and it will probably lead to the concealment of disease and other difficulties. When Mr. Cardwell announced his intention of reducing the hospital stoppage in ordinary cases, it is to be regretted that he did not make an exception of those soldiers whose disease resulted from causes within their own control. Instead of doing this, he has adopted the principle of stopping the soldier's pay altogether when he is ineffective from these causes, which will, we think, prove a mistake and a source of discontent.

PUBLIC MORTUARY FOR GUILDFORD.

TWO resolutions appear to have been lately arrived at by the urban sanitary authorities of Guildford: one of them is to erect a public mortuary for the town, and nobody will question the propriety of such a provision; the other is to erect that mortuary within a few yards of the public well which supplies the town with water, and close by the entrance of one of the most frequented walks by the river-side in the neighbourhood—a choice of site which seems to have not unnaturally aroused considerable indignation. We should have thought that the unfavourable notoriety which Guildford acquired some time ago in respect of its water-supply would have rendered the town authorities watchful to guard their well against suspicion in future, and we cannot but think that they are acting imprudently in regard to this mortuary by persisting in putting it near the well. Possibly they may feel satisfied of being able entirely to guard against the chance of any of the mortuary drainage getting into the well; but something must be allowed for sentiment in such matters, and the consociation of ideas implied in the proximity of the two is certainly not pleasant. Surely some site less open to objection can be found for this mortuary than one which will, in all probability, debar the townsfolk from a favourite walk. The proper place for a mortuary and post-mortem house is a spot as far secluded as possible from the gaze of the vulgar or the curious—which seems to be exactly where it is *not* proposed to erect the Guildford mortuary.

A SCIENTIFIC SOCIETIES' HOUSE.

IT is not to be wondered at that certain of the metropolitan learned and scientific societies, outside the small select coteries which have Government quarters at Burlington House, should feel the disadvantage of being scattered about in lodgings, with indifferent accommodation, for which they have probably to pay dearly. An influential committee, representing the Statistical, Meteorological, and Juridical Societies, the Social Science Association, the Anthropological Institute, and other learned bodies, has for

some time been at work, and, failing any assistance from Government, have organised a Limited Company, with a capital of £40,000 in shares of £10 each, to provide the required accommodation. The trustees are Lord Derby, Lord Wolverton, Mr. T. Baring, M.P., and Mr. W. H. Smith, M.P. The directors are all men of known and high repute, and Dr. F. J. Mouat is the acting honorary secretary. A most eligible freehold site, close to the Broad Sanctuary in Westminster, is offered, and the directors anticipate that thereon a building adequate for at least twelve societies may be erected for about £35,000 (including the purchase of the site), while a rental income of £2500 per annum is calculated upon. The undertaking has our best wishes for its success, and we are glad to hear there is no doubt upon that score, as the shares are being well taken up.

In the Company's prospectus there is printed a copy of a memorial addressed by the societies in May, 1871, to Mr. Lowe, wherein they asked for the grant of a site from the Government, and offered to expend £20,000 upon the building to be erected thereon. It is needless to say that the proposal was not entertained by the Government. To throw away hundreds of thousands and save a few hundreds by humiliating niggardliness is the triumph of modern political finance.

ALCOHOL IN HOSPITALS.

TEETOTAL orators are certainly a very interesting race of beings. *Les extrêmes se touchent* is a very old saying, and it is remarkable how this is verified in respect to the extreme votaries and the extreme opponents of alcohol. Two sorts of men there are—the drunkards and the propagandist teetotalers—who habitually adopt a mode of speech which, to speak politely, is calculated to convey an erroneous impression. An instance of this has just come under our observation. It appears that the good folk of Guildford have been holding a teetotal meeting, and that the chairman, in the course of some remarks on the subject of the administration of alcohol in hospitals, quoted the words of some "matron of a London hospital," who is reported to have said, "they die drunk in our wards; spirits are poured down their throats, and they die drunk, Sir." Now, it is scarcely necessary to observe that this statement is absolutely untrue, and that so far as stimulants *are* given, in the last hours of hospital patients, it is with the intention, and usually with the effect, of subduing delirium, and rendering the mind calmer and more intelligent. What interests us is the question, how did the chairman come to make such a statement? Does he really believe that any respectable or trustworthy matron would make a general charge of this kind (to an outsider) against the medical officers of the hospital to which she was attached?

PHYSIOLOGICAL LABORATORY & DISSECTING ROOMS FOR COMPARATIVE ANATOMY AT CAMBRIDGE.

A REPORT has been lately issued by the Syndicate appointed to consider a proposed building which should provide better lecture-rooms and laboratories for practical physiology, and better accommodation for dissection of animals, than at present exist in the university. This report proposed the purchase of certain ground which may be available for the purpose, but states that the Syndics are not at present prepared to give an opinion respecting the building. In the discussion on the subject which took place in the Arts Schools on Friday last, the Vice-Chancellor, in reply to inquiries made by Professor Humphry, stated that the Syndics had expressed their feeling of the great importance of the work, and that the postponement was not due to any want of appreciation of the value of the buildings referred to, whereupon Professor Humphry observed that he was glad to understand that the Syndicate did not abandon the plan. There was very great need of space for operations in the two very important branches of practical physiology and dissecting for comparative anatomy. He urged the claims of these branches more particularly because the work being done was not done—like too much of the work in the University—for examinations and reward. It was work that distinctly influenced teachers in other branches—his own for example,—and also influenced disinterested students; and for this work the space provided must be described as completely insufficient. There never was a time when the University so decidedly stood at the bar of public opinion. With all eyes watching its course, steps should be taken to readjust the balance between expenditure on teaching and expenditure on rewards, the latter being in his opinion relatively excessive.

THE TOTTENHAM LOCAL BOARD AND ITS MEDICAL OFFICERS

THE Tottenham Local Board is about to earn an unenviable notoriety among sanitary authorities who have determined to reduce the provisions of the Public Health Act, 1872, to nonsense. With a district which has an area of 4680 acres, and a population of about 23,000, it has decided to divide the district into two, and elect a medical officer of health for each. It is proposed to give the two medical officers salaries of £40 and £50 respectively, and to make the appointments in the first instance for twelve months. The Local Board will have nothing to do with aid from the Government in the payment of the salaries, but it will require the medical officers to conform to the duties set forth in the Order of the Local Government Board of the 11th of November, 1872, with the exception of such as relate to that Board.

It is painful to observe a Local Board, while thus carrying out literally a requirement of the Public Health Act, so acting as to reduce the benefits to be obtained from the requirement to the least amount. The district of the Tottenham Local Board would have formed a fitting district for a single medical officer of health at a salary proportionate to the importance of the duties to be performed by him. The proposed arrangement is neither more nor less than a provision for these duties being performed in a perfunctory manner; and the salaries to be given measure no doubt very accurately the amount of service which the Local Board requires from its medical officers.

THE TURVILLE TRANCE CASE.

WE have instituted some inquiries respecting this case, and through the kindness of Mr. Henry Hayman, F.R.C.S., of Stokenchurch, Oxon., we have been furnished with the following particulars. Mr. Hayman's short account of the case had, in fact, already appeared in our columns some time ago. The little patient has excited a good deal of local interest and curiosity, and has naturally had numbers of people to visit her. It was in 1870, Mr. Hayman states, that he first professionally visited the child at Turville, named Ellen Sadler, who was then suffering from glandular swellings and some symptoms apparently referable to a spinal affection, attended with great debility. Through the instrumentality of the vicar of the parish, admission was procured for her into the County Infirmary. The notes preserved of her case at that institution state her age on admission as nine years, that she had been thirteen weeks ill, and that the symptoms under which she laboured were suggestive of some obscure disease of the spine. After remaining nearly four months in the hospital, she was dis-

charged as incurable. Shortly after her return home, she was again visited by Mr. Hayman, who learnt that she had been seized on the previous night with a succession of fits. The child at this date assumed the position she has since retained—viz., lying on the left side, with her hand under her head, and the lower extremities drawn upwards. There has never been any desire to represent it as a "fasting case," or anything of the miracle type. The child has been fed with wine, gruel, and other things, but for nearly the whole of the past year nourishment has been administered many times a day in very small quantities by means of the spout of a toy teapot inserted between two broken teeth. The child is, we believe, gradually sinking from inanition, and it would be manifestly out of the question to think of removing her from her present position.

THE CONJOINT SCHEME IN ENGLAND.

SIR JAMES PAGET, as chairman of the Committee of Reference for a Medical Examining Board in England, has written a letter to the Vice-Chancellor of the University of London, expressing the wish of the Committee that all the medical authorities in England should take part in the conjoint scheme, and the gratification that would be felt by the Committee if it should learn that the University of London was taking steps to remove the legal disabilities which prevent its co-operation. It is not encouraging, within a very few weeks of the meeting of the Medical Council, to find that the Committee of Reference is apparently uninformed as to whether the London University has taken any action in this matter.

PARISH DOCTORS AND RATEPAYERS.

A CURIOUS lawsuit is recorded in the *Inverness Courier*. Mr. Chisholm, farmer, Loan, in the parish of Loch Carron, tried, before the Sheriff Substitute, to avoid paying a doctor's bill of £4 4s. on the ground, forsooth, that the doctor, Dr. Tulloch, lately medical officer to the Parochial Board of Loch Carron, was bound as parish doctor to attend ratepayers and their families, except in obstetric cases, without any charge. We might have thought this a freak of fancy on Mr. Chisholm's part had he not been gravely supported in the doctrine by Mr. David Ferguson, chairman of the Board; Mr. Macrae, postmaster; and Mr. Simon Fraser, bank agent. Loch Carron, we may presume, is not a very big parish, and here are nearly all the leading men of the place arguing that they are to be attended by the parish doctor, and therefore as paupers. We leave the Scotch nation to express its opinion of this new Loch Carron doctrine. It has a reputation for independence and a dislike of receiving gifts *in forma pauperis*. The Sheriff Substitute gave judgment for the doctor. It is exceedingly gratifying that Mr. Chisholm will have his sense of independence strengthened, not only by having to pay the doctor's bill, but the expenses of the doctor's suit.

HEALTH AND METEOROLOGY.

THE effects produced upon the health of the population by changes of temperature and varying conditions of atmosphere are deserving of the closest investigation; and we are glad to perceive any indications of attention being given to this subject by medical men. Dr. Whitmore, in his last monthly report on the health of Marylebone, has commenced the publication of a meteorological table for the parish, the facts being derived from the registers kept at the Botanical Gardens, Regent's-park. We are, no doubt, anticipating what Dr. Whitmore will do in his future monthly reports when we remark that the mere publication of columns of figures in a table will not convey much notion of the relation between meteorology and health. Wherever returns of sickness are available, as they are in Marylebone, the results of a careful comparison of those returns with the meteorological tables will, if clearly and concisely set forth (due caution being used in the matter of drawing conclusions), awaken increased interest in a very important branch of scientific inquiry.

THE CONTAGIOUS DISEASES ACTS.

AMONGST the Bills presented to the House of Commons by the eccentricity of individual members of the Legislature, there is one very curious piece of statesmanship, which will at least not give trouble in committee. Its preamble contains ten words—its only clause contains twenty-six; and its object is simply to repeal the Contagious Diseases Acts. It bears the names of Mr. William Fowler, Mr. Jacob Bright, and Mr. Mundella; and it may be taken as a fair specimen of what the country may expect when constituencies send to Parliament gentlemen who have devoted the more active periods of their lives to trade and manufacture, and who then, at something more than middle age, become law-makers.

THE KIDDERMINSTER UNION.

THE Baroness Burdett Coutts, always prompt to use the advantages of her great position for the protection of the helpless or the oppressed, has recently called the attention of the Local Government Board to the excessive punishment inflicted upon James Rogers, a child only five years old, by the shoemaker at the Kidderminister Union Workhouse, of which institution the child was a pauper inmate. The Baroness's letter has had the good effect of producing the publication, in the *Daily Telegraph* and other papers, of the rules by which workhouse discipline is maintained; and these rules appear, on the whole, to be all that could be desired. Moreover, as the Baroness's attention was only called to the matter by a published report of the dismissal of the delinquent shoemaker by the guardians, and of his punishment by the magistrates, it may reasonably be hoped that the rules actually work well in practice. It is obviously impossible for the central authorities to prevent the occasional abuse of power, and all that can be done is to punish such abuses when they occur, and thus to teach shoemakers and others the necessity for restraining their passions within the bounds prescribed by duty.

MR. CROFT'S CASE.

WE are very happy to report, and the profession will be glad to learn, that the Grand Jury at Warwick Assizes ignored the bill in the case of Mr. Croft, of Snitterfield. The Judge strongly expressed himself, in charging the Grand Jury, to the effect that the certificates of Mr. Croft, though inaccurate, were not wilfully untrue, and that there was no legal ground for the action against Mr. Croft by the Prudential Insurance Company. Mr. Croft had not violated either the statute relating to forgery or the general Act for registering births, deaths, and marriages. The Judge—Chief Justice Bovill—exactly hit the truth when he said that Mr. Croft had been guilty of an act of carelessness. We congratulate Mr. Croft on the issue of this matter, which has been a source of much trouble to him. We never regarded the matter seriously, believing that Mr. Croft was perfectly sincere in what he did. He has paid severely for his carelessness; but he may be comforted by the remarks of the Judge, the sympathy of the profession, and last, though not least, by the fact that his case will serve to put medical men on their guard against a good-natured inaccuracy in filling up certificates.

THE BROMPTON HOSPITAL FOR CONSUMPTION.

AT the Quarterly Court held on Friday of last week it was stated that since last court the following legacies had been announced: — Mr. George Marley, £1000; Miss Clara Howard, £5; Miss Catherine A. Williams, £200, duty free; Mrs. Mary White, £200; Miss Houston Douglas, £250, duty free; Mrs. Moss, £19 19s. The number of patients admitted since the 28th of November was 243, of which 205 had been discharged, many greatly benefited; 22 had died. It is certain that great improvement is sometimes effected by the treatment to which patients are subjected in this hospital, dietetic and medicinal. We do not remember, by the way, to have seen any account of the application of the £100,000 left by the "old lady of Stamford-street." We should be glad to hear that it is being wisely used. This hospital is eminently one that should have a convalescent home in connexion with it, to which suitable cases might be drafted. We throw out the suggestion in the hope that the court may entertain it.

A NEW HOSPITAL IN ST. PETERSBURG.

THE *Journal de St. Petersbourg* gives an interesting account of the opening of a new hospital (Hôpital Evangélique) in St. Petersburg. The hospital has been built by the Evangelical Church in that city. The number of beds is not stated, but the building is described as constructed of red bricks, and designed externally after the fashion of a middle-age castle, with mansard roofs, crenellated parapets, and donjon. The wards are said to be very capacious and well ventilated; and there are special wards for contagious diseases, also for sick mothers who are still suckling their infants. Rooms also are provided for paying patients. A separate building has been constructed for phthisical cases. Here the dormitory is connected with a cowshed so arranged that the patients can breathe the odours from the animals stalled there. Speaking-tubes communicate from the different wards with the room of the physician; and an ingenious atmospheric telegraph for summoning the nurses is placed within reach of each patient. The pharmacy, under the charge of one of the sisters, is stated to be a model of good arrangement, and the baths, ordinary, special, and medical, would appear to be very complete. The kitchen is said to have the aspect of one belonging to a first-class eating-house rather than of a hospital. The staff consists of one physician and fourteen sisters of charity, "qui se partagent entres elles les différents services, *font tout elles-mêmes*, et suffisent à tout." The sole luxury which is allowed "est celui du *comfort*, qui ne laisse rien à desirer, et de l'exquise propreté."

DEATH UNDER POLICE SUPERVISION.

WE have so frequently called attention to the melancholy deaths which occur from time to time in police-cells owing to a mistaken diagnosis by the officers in charge, that we should not notice the subject now were it not that the most recent example of the kind was in the person of one of the force itself. A young Liverpool policeman was found lying on his face insensible, though he was capable of being roused for a short time. He was pronounced drunk, and taken to the lock-up, where he lay for some hours on the bare floor of the cell. Eventually a doctor was called in, when the man had been for some hours comatose, and he was removed to the hospital, where he shortly died. The post-mortem examination showed, as might have been anticipated, a fracture of the skull with extravasation of blood, a large clot being found within the skull, flattening the cerebral hemisphere. How the injury was produced does not appear, but it cannot be too strongly impressed upon the minds of the police generally, that temporary consciousness following an injury to the head is no proof of the slightness of the injury. So long as concussion exists a ruptured meningeal artery does not bleed, but when reaction and vomiting come on, blood is poured out from the lacerated vessel, and will shortly induce fatal coma unless, indeed, happily relieved by the trephine.

CRUELTY AND ITS PATHOLOGICAL EFFECTS.

ALL honour to Baroness Burdett Coutts and the ably administered Society for the Prevention of Cruelty to Animals. Its beneficent labours have worked for good, not only in lessening the sufferings of the brute creation, but in educating the often inhuman master to a sense of what he owes to the poor dumb ministrant to his wants. Italy has taken a leaf out of this *libro d'oro* of humanity, and already in Florence a "Società Protettrice degli Animali" has commenced its operations. In its annual report, Dr. Comandi, the secretary, points out the instructive fact that the ill-treatment of the animals used for food reacts on their consumer. Excessive fatigue, terror, panic, or rage, deranges their functions and the nutrition of their tissues, not only diminishing the quantity but affecting the quality of their flesh. Dr. Comandi points out that in one of the wars of the First French Empire typhus fever broke out in the Austrian army, and that a distinct exacerbation of its virulence was traced to the use of the meat of oxen driven after the troops through severe forced marches. Were facts like these more generally known, they would have some effect in alleviating the horrors of the middle passage so often commented upon by shocked spectators of the brutalities inflicted on their dumb fellow-passengers.

PROFESSIONAL SUICIDE IN ISLINGTON.

THE Islington Guardians have lately raised the salary of Dr. Cotton, the medical officer of the parish schools of Islington, from £40 to £60. Our readers will remember that one of our Commissioners not long ago visited the schools, and reported very favourably of the medical care displayed in the health of the children, especially in the abeyance of skin and scalp disease—the opprobria of such institutions. Our Commissioner's report was quoted as an argument for the advance. It will scarcely be credited that the guardian who led the opposition to an advance of salary said that since the subject had been raised in the board, he had had a letter from two medical men of high standing in the neighbourhood offering to take the appointment at £40. The guardians, however, showed that they knew when they were well served, and raised Dr. Cotton's salary to £60. They would probably have raised it to £80, but for the offer from the two gentlemen of "high standing." We leave these gentlemen to their own doubtless complicated reflections. They have not procured the appointment. The guardians have preferred the services of a tried servant at £60 to theirs at £40.

KAHN'S MUSEUM.

DR. KAHN'S Anatomical Museum will be conspicuous by its absence among the institutions of the metropolis. It has been the best illustration of how long a public scandal in a crowded thoroughfare may exist with impunity to its proprietors. Kahn's Museum being closed "for the present," as the newspaper report of the late raid by the police on that institution informs us, we may venture to hope that its presence will not hereafter be allowed to disgrace Tichborne-street. Acting on a warrant, granted on the appli-

cation of the solicitor to the Society for the Suppression of Vice, detective-sergeant Butcher, with several assistants, recently seized forty cases of models, which were rightly deemed by the Society "indecent, disgusting, and demoralising." The persons carrying on the museum will in due course be summoned to attend the Marlborough-street Police-court to show cause why the models should not be destroyed. We must enter our protest against any assumption that the models and other contents of such museums are fit for public exhibition, for they are in our opinion unfit, and all exhibitions of the kind should be prohibited by law.

THE GERMAN AMBASSADOR.

HIS EXCELLENCY'S condition manifests no relapse. Permanent improvement is not likely to be effected by a single tapping, and must, in any case, be a process of considerable duration.

THE MEDICAL SOCIETY OF LONDON.

THE Medical Society will commence the second century of its existence on Monday next, at its new rooms, No. 11, Chandos-street, Cavendish-square, when the President, Dr. Habershon, will deliver an address, to be followed by a paper by Dr. Tilbury FOX. The centenary dinner of the Society will be held this evening (Saturday) at Willis's Rooms, at which a large gathering of the friends of the Society is expected.

THE TIVERTON INFIRMARY.

WE are glad to learn that the differences of this institution have been removed, and that the report of the special committee appointed to treat with the ex-medical officers has been unanimously adopted by the subscribers. The medical officers, being satisfied with the alterations in the rules suggested by this committee, have properly accepted office. We have already indicated the nature of these alterations. It only remains for us to congratulate the honorary officers on the result of the right position they took and so firmly maintained. The institution, too, may be congratulated.

A COMMITTEE of the Lambeth Vestry have drawn up a code of regulations, fifteen in number, having for their object the sanitary improvement of the district, and especially the lessening of overcrowding in dwelling-houses. Rule 1 is as follows:—That the medical officer shall keep a register of houses, with a cubical measurement of the several rooms. Rule 13 is a very bold one, and gives the medical officer or inspector of nuisances the power of entering at any time any house subject to the operation of the rules (other than a common lodging-house), and punishes any persons obstructing their entrance. At a late meeting of the Vestry, considerable opposition was manifested towards the regulations, some members denouncing them as extremely arbitrary. A special night has been appointed for the further consideration of the report, when, should it be approved, it will be submitted to the Secretary of State.

AT the last meeting of the Lambeth Guardians it was decided, on the recommendation of Dr. Bullen, the medical officer, that in future poisonous substances in the workhouse, and all liquids used for lotions and liniments, should be kept in specially-constructed bottles, differing in shape and appearance from ordinary phials. We have long advocated the importance of this step, which would prevent such an occurrence as the recent death from carbolic acid, and hope shortly to see all the metropolitan workhouse authorities adopt it.

WE learn from the returns of births and deaths for the weeks ending the 4th and 11th January last, issued from the Sanitary Commissioner's Office, Lahore, that there was no death from cholera in the district. In Peshawur there had been a marked increase of mortality. That city was suffering from two very fatal epidemics, small-pox and pleuro-pneumonia; the former confined almost entirely to children, the latter was destroying a large number of adults. It had prevailed in the gaol for some weeks with very fatal effects, although the prisoners are well clothed, well fed, and well housed. It is considered to be a communicable disease, the spread of which can only be prevented by strict measures of segregation and disinfection.

IN consideration of the advanced charge for commodities of nearly every kind, instructions have been issued from the War Office directing that from the 1st of April next, until further orders, the Control Department shall add 15 per cent. to the prices of all stores inserted in the "Woolwich Vocabulary" when supplied on repayment, the charge to be in addition to the percentage claimed to cover departmental expenses. Charges for barrack and hospital stores and regimental equipment lost or destroyed by the troops are excepted from this order, and will still be assessed according to the vocabulary.

AT a meeting of the Lillington Local Board of Health held a few days ago, that body accepted a resolution agreeing to join with the rural authorities of Leamington, Warwick, and Milverton, in appointing a medical officer for the four districts, who should be paid £400 a year, and precluded from engaging in private practice, as agreed at the conference of deputations from the four local boards; but the Lillington Board stipulate that the apportionment of the salary should be according to the population, and not according to the rateable value of each district, as determined at the conference.

THE St. Pancras Board of Guardians will probably in a very short time be again out on the war path. The Local Government Board have complained that, on a recent visit to the workhouse of Mr. Longley and Dr. Mouat, they found as many as 65 inmates above the maximum number allowed, and moreover there were many in the infirmary who ought to be removed without delay to a hospital. A latent and sinister intention of foisting the Cleveland-street Workhouse on the guardians was discovered in the communication.

WE learn from a paragraph in *The Times*, that on Monday last, at the Ashborne (Derbyshire) Petty Sessions, Mr. Innes Pool, described as a surgeon, of Lognor, Staffordshire, was charged with having caused the death of Eliza Atkin, aged 16, by attempting to procure abortion. The prisoner was committed for trial at the next assizes on the charge of wilful murder. We cannot find this person's name in the Medical Directory, and it is to be hoped, for the honour and fair fame of the profession, that he is not a member of it.

THE late Mr. Archibald Colquhoun left by his will £20,000 to be invested by his trustees for the benefit of poor people "afflicted with incurable disease, and so destitute and helpless as to be proper objects of charity." The bequest may be applied towards the foundation of a hospital for incurables.

AS might have been expected, the deaths from pulmonary complaints show a considerable increase in the mortality report for last week. In the metropolis there were sixty-three deaths from whooping-cough registered during the week.

THE Rolls Court has had a difficult point to decide in the case of Martineau *v.* Chapman. The testator bequeathed £200 to the Royal Free Hospital, Gray's-inn-road, and £300 and a share of residue to the "City of London" Hospital. The Master of the Rolls has referred it to Chambers to inquire what hospital was meant by the "City of London" Hospital. Was it the City of London Lying-in Hospital, or the London Hospital in the Whitechapel-road, or the City of London Hospital for Diseases of the Chest?

SOME keen rivalry has been shown by Doncaster and Pontefract for the honour of being selected as a military centre, each town pleading its extreme salubrity; statistics of births and bills of mortality have been fiercely flung from one to another, and now one of the ablest of our provincial contemporaries has entered into the contest apparently in favour of Pontefract. Fortunate Pontefract! where only "2 per 1000 per annum die from preventable disease."

THE Committee appointed by the rural and urban sanitary authorities of the Halifax Union (with the exception of Halifax, Ovenden, and Greetland) to consider the terms and conditions on which to appoint a medical officer of health for the combined district have decided to offer a salary of £600 a year, including all expenses, and to make the appointment first for three years, the officer to give all his time to the duties of the post.

A PAUPER at the Woolwich Workhouse, suffering from "sunstroke, together with delirium tremens" (we quote from a lay contemporary), had been receiving, by the order of the medical officer, a pint of champagne a day. The fact was officially brought before the notice of the guardians at their last meeting, and they, after mature deliberation, determined to transfer their interesting but costly *protégé* to Birkenhead, his native town.

THE "buzzer" nuisance, in a slightly modified form, appears likely to be re-established in Leeds. The Sanitary Committee of the corporation have recommended the Town Council, who have been memorialised on the subject, to permit the use of steam whistles in the borough for summoning or dismissing the workpeople—such whistles, however, not to be allowed to sound for more than ten seconds at a time.

WE greatly regret to announce the serious illness of Dr. Ormerod, F.R.S., of Brighton. He has been suffering for years past from prostatic calculi, which he has had crushed from time to time. Within the last few weeks cystitis set in, and grave constitutional disturbance due to pyæmia has supervened.

THE British Medical Benevolent Fund has received a donation of £100 from Mrs. Frances Osborne, of Cawthorpe, through the Honorary Financial Secretary. It is hoped that this will aid the Committee in their endeavour to found another annuity, and thus help to lighten their long list of aged expectants.

THE Home Secretary lately made an order for the erection of a new pauper lunatic asylum in Norwich. We now learn that the Town Council are strongly opposed to the project, and intend breaking a lance with the Home Secretary on the question in one of the superior Courts.

DR. W. H. RUSSELL, of *The Times*, has, we understand, received permission from Count Schouvaloff to accompany the Russian expedition to Khiva.

THE Local Government Board have assented to the proposal of the Managers of the Metropolitan Asylums Board to pay a sum of £40 to the children of a nurse who died of typhus caught whilst attending on the fever patients in the Stockwell Fever Hospital. We are glad that the Local Government Board have created a precedent of compensating the relatives of officials dying in the discharge of their duty.

AT the dinner given last week by Earl Granville to the members of the Senate of the University of London, the following members of the profession were present: Sir Wm. Gull, Sir Jas. Paget, and Drs. Burrows, Carpenter, Hirst, Johnson, Quain, and Sibson.

WE understand that the Admiralty have approved of a limited number of naval medical officers on half-pay being allowed to avail themselves of the course of instruction at the Army Medical School at Netley.

THE Principalship of the University of Glasgow, vacant by the death of the Rev. Dr. Barclay, has just been conferred on the Rev. John Caird, D.D.

SCARLATINA has broken out among the inmates of the Forest Gate School, an establishment under the care of the Hackney Guardians.

THE following members of the profession were presented at the recent levée:—Drs. William Farquhar, Ralph Gooding, and J. Lawrence Hamilton.

WE are glad to be able to state that there are slight symptoms of improvement in Dr. Bence Jones's condition.

THE NEW ARMY MEDICAL WARRANT.

VICTORIA R.

Whereas we have been pleased to approve of regulations for the Medical Service of our army;

Our will and pleasure is that on and after the date of this warrant, the following rules shall be established for the future admission, promotion, and retirement, and the pay, half-pay, relative rank and allowances of the medical officers of our army, and that by these rules our Commander-in-Chief shall govern himself in recommending officers for admission, promotion, and retirement.

2. The following articles of our Royal Warrant of 27th December, 1870, are hereby cancelled—viz., 112 so far as it applies to medical officers, 334 to 359, 498, and 1007 to 1013; likewise such portions of our Royal Warrants of 23rd October, 1854, and 1st October, 1858, as are still in force.

3. The ranks and rates of pay of the officers of the Army Medical Department shall be as follows:—

	Daily. £	*s.*	*d.*	*Charge pay.*
SURGEON-GENERAL	2	0	0	The Principal Medical
After 25 years' service	2	5	0	Officer of an Army in
„ 30 „	2	7	0	the Field, consisting of
„ 35 „	2	10	0	10,000 men and upwards,
DEPUTY SURGEON-GENERAL ...	1	10	0	£1 daily; of 5000 men
After 25 years' service	1	12	0	and upwards, 15*s.* daily;
„ 30 „	1	15	0	of less than 5000, 10*s.*
„ 35 „	1	17	0	daily.
SURGEON-MAJOR	0	17	6	Or the Principal Medi-
After 15 years' service	1	0	0	cal Officer of a Colony
„ 20 „	1	4	0	where the number of
„ 25 „	1	7	0	commissioned officers
SURGEON, on appointment	0	10	0	and enlisted men is 1500
After 5 years' service	0	12	6	and upwards, 5*s.* daily.
„ 10 „	0	15	0	

4. The relative rank of the officers of the Army Medical Department shall be as follows:—

(1) A Surgeon-General shall rank as Brigadier-General, according to the date of his commission; if with an army in the field or after three years' full-pay ser-

vice as Surgeon-General, he shall rank as Major-General from the date of his joining such army in the field, or according to the date of the completion of such service.

(2) A Deputy Surgeon-General shall rank as Lieutenant-Colonel, according to the date of his commission; after five years' full-pay service as Deputy Surgeon-General, he shall rank as Colonel, according to the date of the completion of such service.

(3) A Surgeon-Major shall rank as Major, according to the date of his commission; after twenty years' full-pay service as Surgeon and Surgeon-Major, he shall rank as Lieutenant-Colonel, but junior of the latter rank.

(4) A Surgeon shall rank as Lieutenant, according to the date of his commission; and, after six years' full-pay service, as Captain, according to the date of the completion of such service.

5. The relative rank of these officers shall regulate choice of quarters, rates of lodging money, servants, fuel, and light, or allowances in their stead, detention and prize-money, as well as allowances granted on account of wounds or injuries received in action, and pensions and allowances to widows and families; except that in the case of medical officers attached to regiments their choice of quarters shall be according to their regimental seniority.

6. Forage shall be granted to officers of the Army Medical Department for such number of horses as are necessarily kept by them for duty.

7. Inspectors-General of Hospitals and Deputy Inspectors-General of Hospitals now serving, or who being now on half-pay shall hereafter be called upon to serve, shall be styled Surgeons-General and Deputy Surgeons-General respectively.

8. Surgeons now serving, or who being now on half-pay shall hereafter be called upon to serve, shall be styled Surgeons-Major; and Assistant-Surgeons similarly circumstanced shall be styled Surgeons.

9. Every candidate for appointment to the Army Medical Department shall possess two diplomas or licences, one to practise medicine and the other surgery in Great Britain or Ireland, and be registered under the Medical Act in force at the time of his appointment. Before receiving a commission, the candidate shall pass an examination in military medicine, surgery, hygiene, and pathology, after attending the authorised probationary course at a general military hospital.

10. Successful candidates shall have their commissions antedated to include the period of their probation, but such antedates shall not carry back pay. Candidates shall receive from the date of joining the General Military Hospital, and up to the time of leaving it, 5*s.* a day. Successful candidates shall be entitled to the full pay of Surgeon from the date of their passing the examination.

11. A Surgeon shall pass such examination as our Secretary of State may require, before he can be promoted to the rank of Surgeon-Major.

12. A vacancy in the rank of Surgeon-Major, occasioned by death or promotion, shall, unless it be expedient that it be otherwise filled, be given to the senior qualified Surgeon of the Department. If a vacancy shall arise from any other cause it shall be filled by a qualified surgeon, who shall be recommended to us by our Commander-in-Chief, with the approval of our Secretary of State.

13. In cases of distinguished service, a Surgeon, if qualified, may be promoted to the rank of Surgeon-Major without reference to seniority; and in such cases the recommendation detailing the services for which the officer is proposed for promotion shall be published in the General Orders of the Army, and in the *Gazette* in which such promotion shall appear.

14. Surgeons serving in India may be granted local rank as Surgeon-Major after twelve years' service.

15. The medical officer attached to a regiment or battalion shall remain with it as a rule for five years.

16. All promotion from the rank of Surgeon-Major to that of Deputy Surgeon-General, and from the rank of Deputy Surgeon-General to that of Surgeon-General, shall be given for ability and merit upon the selection of our Commander-in-Chief, with the approval of our Secretary of State; and the grounds of such selection shall be stated to us in writing, and recorded in the department. In all such cases the amount of regimental service and the amount of foreign service shall be expressly stated.

17. A medical officer retiring after full-pay service of twenty-five years and upwards may, if recommended for the same by the head of his department, receive a step of honorary rank, but without any consequent increase of half-pay.

18. Good-service pensions shall be awarded to the most meritorious officers of the Army Medical Department, under such regulations as shall be from time to time determined by us, with the advice of our Secretary of State.

19. Six of the most meritorious officers of the Army Medical Department shall be named our Honorary Physicians, and six our Honorary Surgeons.

20. Medical officers shall have a right to retire on half-pay after twenty years' service. Medical officers of the rank of Surgeon-Major or Surgeon shall be placed on the retired list at the age of fifty-five, and all Surgeons-General and Deputy Surgeons-General at the age of sixty-five years: unless in any special case it would be for the good of our service that the officer shall continue in employment.

21. Our Secretary of State may, when he shall deem it fit, employ medical officers on the half-pay list in special situations at such daily rates of pay, in addition to half-pay, as he shall from time to time determine; but such officers shall vacate their appointments on attaining the age of sixty-five years.

22. A medical officer who, having voluntarily resigned his commission, has subsequently been permitted to re-enter the department, shall not, except under very special circumstances, to be approved by our Secretary of State, be allowed to reckon his former service.

Service on the West Coast of Africa.

23. Service of medical officers upon the West Coast of Africa shall be voluntary, except for those who enter the department especially for African service.

24. Each year or portion of a year shall be allowed to reckon double towards retirement, but not towards increased pay, provided that the officer shall serve at least twelve months on the West Coast of Africa.

25. For each year's service on the Coast a medical officer shall be entitled to a year's leave at home, and for every additional period beyond a year he shall have an equivalent extension of leave.

26. Officers who may enter the Army Medical Department expressly for service on the West Coast of Africa, and those who may volunteer for that service from the General Department, after the date of this Warrant, shall receive double pay while actually serving on the Coast.

27. Officers who enter the department expressly for service on the West Coast of Africa shall pass the same examination as other medical officers, but they may be admitted at a later age. They will be required to complete three years' actual service on the coast, after which they shall be eligible for general service. If it shall be certified by a Medical Board that any such officer is unfit for further duty on the West Coast of Africa he may be employed elsewhere, notwithstanding that he may have served for less than three years on the coast.

Non-Effective Pay.

28. A medical officer placed on half-pay by reduction of establishment, or on the report of a Medical Board in consequence of wounds or ill health, caused in and by the discharge of his duties, or on account of age (under Article 20), shall be entitled to half-pay in accordance with the following scale:—

	Daily.
Surgeon-General, after 30 years' service ...	£1 17 6
" " 25 " ...	1 13 6
" " 20 " ...	1 10 0
Deputy Surg.-General, after 30 years' service	1 5 6
" " 25 " ...	1 2 6
" " 20 " ...	1 1 0
Surgeon-Major, after 25 years' service ...	1 0 0
" " 20 " ...	0 16 6
" " 15 " ...	0 13 6
" " 10 " ...	0 11 0
Surgeon, after 10 years' service	0 10 0
" " 5 "	0 8 0
" under 5 "	0 6 0

29. The rate of half-pay awarded to officers retiring for their own convenience, after twenty years' service on full pay, under Article 20, shall not exceed one-half of their full pay at the time of retirement.

30. Every medical officer who shall retire after a service upon full pay of twenty-five years, shall be granted a rate of half-pay equal to seven-tenths of the daily pay he may have been in receipt of when thus retiring on half-pay, provided he shall have served three years in his rank, or shall have served abroad for ten years in all ranks, or for five years with an army in the field. An officer of twenty-five years' full-pay service, whose service falls within neither of these conditions, shall be entitled to only seven-tenths of the daily pay he was in receipt of prior to his last promotion.

31. A medical officer placed on half-pay from any other cause shall be allowed only a temporary rate of half-pay (not exceeding the rates specified in Article 28) for such period and at such rate as our Secretary of State for War shall decide with reference to the services rendered to the public by such officer.

32. Medical officers of twenty years' full-pay service, placed temporarily on half-pay on account of ill health, may, however, be allowed to retire on permanent half-pay, at the rate fixed by Article 28, if after one year on half-pay they shall be reported by a Medical Board to be permanently unfit for further service.

Provisional Arrangements.

33. Until further pleasure shall be made known, nothing contained in this Warrant shall be held to change the existing system of promotion of the medical officers of our regiments of Household Troops.

34. Surgeons who, previous to the date of this Warrant, entered the department expressly for service on the West Coast of Africa, and who are borne on a separate list for promotion, shall be eligible for transfer to the general list, on the completion of the third or any subsequent tour on the Coast, provided they shall have performed their duties to the satisfaction of our Secretary of State, and shall have passed the required examination, after attending the Army Medical School.

35. A medical officer appointed before the date of this Warrant, and promoted while serving on the West Coast of Africa, may, on the completion of three successive tours of service, each of twelve months, in the rank of Surgeon-Major on the Coast, be transferred to the general list.

36. A medical officer removed from the African service under the conditions laid down in Articles 34 and 35 shall join the general service according to the date of his actual commission.

37. The regulations contained in Articles 34 to 36 shall not apply to medical officers who are not of European descent.

38. Any officer serving as Apothecary to the Forces at the date of this Warrant, shall continue to draw the pay and allowances, and to enjoy the privileges, granted to him by our Warrants of 23rd October, 1854, and 27th December, 1870.

Given at our Court at Buckingham Palace, this 1st day of March, 1873, in the 36th year of our reign.

By Her Majesty's command,

EDWARD CARDWELL.

THE ROYAL COLLEGE OF SURGEONS.

PROFESSOR WILSON'S LECTURES.—No. IV.

THE Beauperthuy treatment of leprosy formed the subject of the early part of this lecture. This system consists of three parts—1st, hygienic; 2nd, external applications to the diseased parts; 3rd, internal medicines. The hygienic treatment, which is absolutely essential, and without which nothing but the most temporary improvement can be attained, consists of pure air; nourishing food, including a moderate quantity of fresh meat daily; abstinence from all salted meat or fish, and from pork, whether salt or fresh; a sufficient quantity of fresh vegetables must be given; and if the patients are habituated to its use, a moderate quantity of light wine may be given, but this is not necessary. The external applications consist of soap-and-water baths twice a day, and frictions over the whole of the skin with oil. Cocoanut oil is always used at Trinidad and Cumana, but olive oil might be employed if more convenient. The oil is well rubbed in and allowed to remain on for three or four hours, when the body is thoroughly cleansed by a soap-and-water bath. Oil of cashew-nut is applied to the tubercular formations by means of a small piece of sponge. This application is made at first only over a small portion of the skin, as large, for instance, as the hand, and when the effect of the first application is seen, subsequent ones may be made larger if deemed advisable. The effect of the oil is to produce, after from twelve to twenty-four hours, vesication. The skin should, if possible, not be broken, and the exudation should be allowed to remain and dry on, so as to form a crust. In about ten or twelve days this will fall off, leaving the skin clear and free from any ulceration underneath. If the parts are numbed, but not completely anæsthetic, sensibility will in general be completely restored by the first application; if the anæsthesia is complete, it may require two or three applications to restore it. The applications should not succeed each other at intervals of less than a week. Where the feet are affected, as it is not convenient to use the cashew-nut oil for them, baths of hot cocoanut oil may be used night and morning. These must be superintended by a skilled attendant, who tests the heat with a thermometer, as the patient's sensibility will generally be either deficient or null, and if trusted to him he might scald the feet without knowing it. The heat should not exceed 100° Fahr. The internal medicines administered by Dr. Beauperthuy are perchloride of mercury (Ph. Br.), in doses of one-fifteenth to one-twentieth of a grain twice a day for adults. In cases where mercury is contra-indicated, Dr. Beauperthuy gives carbonate of soda, in doses of ten grains to a scruple, twice a day. The treatment may be interrupted or modified, if any complications occur. Should the mercurial affect the mouth, or cause any irritation of the intestinal tract, it should be discontinued, and the alkali given.

Mr. Wilson proceeded to remark that the local treatment by the cashew oil led to an exudative process which did not act merely locally, but performed the office of a general emunctory for the system at large, and represented the discharging ulcers that are known to exert a beneficial action in lepers, by apparently carrying off *materies morbi* from the body. Dr. Milroy, the lecturer stated, had informed him that the weak part of the Beauperthuy treatment is the long administration of mercury, and he opined that this retarded rather than promoted amendment in the health of lepers. The prospects, however, of preventive were more hopeful than those of curative measures in leprosy, and from all he (Dr. Milroy) had seen and heard, he had derived the conviction that leprosy is a constitutional cachexia of the whole frame (a *morbus totius corporis*) having analogies to scrofula. The fact, too, that the term king's evil was given to the disease in the West Indies lent countenance to this view. Great credit, Dr. Milroy thought, is due to Dr. Beauperthuy, since he was the first to grapple with the subject of the treatment of leprosy, and in that he did not cease till his efforts had forced the matter upon public attention, and was perhaps the first to emphasize the necessity of prescribing a good diet for lepers—a statement to which Mr. Wilson took exception, Dr. Beauperthuy not having any claim to be considered the "inventor of good living" for the leprous, though Mr. Wilson allowed he laid great stress upon it. The Beauperthuy treatment, Dr. Milroy further stated, could not be regarded as one of mere medicinal measures, but one of diet and hygiene also. On the whole, according to his experience, the results of the inquiries led him to regard the treatment of leprosy as offering encouragement. In many cases the disease could be checked, and in many actually lessened; to talk, however, of a cure or perfect recovery in any instance would be, in Dr. Milroy's opinion, a misuse of language. Mr. Wilson concluded, in regard of the treatment of leprosy, that Dr. Milroy had not brought home from his mission any very satisfactory guide to actual therapeutics.

Lastly, in connexion with the treatment of lepers, Mr. Wilson advocated the establishment in England of a leper asylum for the proper care and management of the

leprous. Considering how much supervision they need in the way of appropriate hygiene, in the regulation of diet and exercise, in the use of proper baths, frictions and manipulations of various kinds, in regard to the inunction of oils and the administration of internal and external remedies, he did not think it too much to say that this could alone be fairly carried out in a proper institution, and the knowledge necessary to the discovery of the more successful treatment of leprosy could only be acquired in such an institution.

STOTT'S SYSTEM OF VENTILATING SEWERS AND DRAINS.

FEW problems have excited more discussion than those affecting the purification of our sewers and the utilisation of sewage. A glance at the various patents professing to have obtained a satisfactory solution will show the importance attached to the subject, and the amount of mechanical ingenuity and chemical skill that has been brought to bear upon it.

With regard to Stott's system of ventilating sewers, we may state that it has, at any rate, the merit of simplicity. No chemical agents are used, but advantage is taken of a natural law. Mr. Stott does not profess to deal with the refuse matters, but only with the sewage gases evolved. It is claimed for this system that the drains are kept free and pure, and that the expenditure is confined to the primary cost of the patent fittings, &c. The system was patented in February of last year, and has been adopted in connexion with some public institutions, to which allusion will be made hereafter. Should it be found faulty, impracticable for general adoption, or fallacious in theory, it must, of course, share the fate of its predecessors; but if further investigation and experience should establish its utility, it may well deserve the support of those interested in sanitary administration.

Although the description of it is facilitated by the aid of a plan, we think that the reader will have little or no difficulty in understanding the system. The invention, then, consists in connecting sewers and drains, by pipes, with the furnaces of steam boilers, or other furnaces, where there is a strong draught or high chimney. From the main sewer or drain a pipe is carried upwards, and connected with the furnace. The ash-places are enclosed by a door so as to exclude air, other than that extracted from the sewer or drain by the draught of the furnace and chimney. In some cases, in order to exhaust thoroughly the sewer gases, it may be necessary to admit an additional supply of atmospheric air by gully pipes, in which case the trap of the gully will be dispensed with. In all cases, however, it must be so arranged that the furnace can only receive its supply of air for combustion from the sewer or drain with which it is connected, except when the doors are opened for the removal of the ashes. In this way the furnace is constantly exhausting the sewer of its gaseous products that are burned and purified by the fire into which they pass. A somewhat similar application of this principle has been previously applied to the ventilation of large halls, but, owing to several causes to which we need not now refer, it fell into disuetude.

Stott's system was first practically applied and tested in the township of Greetland, near Halifax, where, we understand, it gave much satisfaction. It was next adopted by the Guardians of the Halifax Union, and applied to the workhouse, in consequence of the success that followed its trial at Greetland. Dr. Thomas M. Dolan, the medical officer of the Halifax Union Infirmary and Fever Hospital, has been kind enough to forward us a sketch of the drainage of the union house, in which its connexion by dry earthenware pipes with one large dry pipe joined to the boiler fire's draught, or ash-hole, by air-tight sheet-iron doors, is clearly shown. The drainage of the house is effected by three principal drains, into which the lesser ones empty themselves. At the outlets of these three drains into the town sewers large syphons are placed, eighteen inches in diameter; and at certain points large ventilating shafts are connected with these main sewers to admit a supply of fresh air as that of the sewer is drawn off by the furnace. At one part of a main sewer a fan has been inserted, the sewer being made air-tight and covered with glass. When the doors of the ash- or draught-hole of the furnace is closed the fan is seen, as might of course be expected, to revolve very rapidly, and the motion to cease when the doors are opened. Considering the hard times on which we have fallen, and the extravagant price of coal, the first doubt that arises is as to the financial obstacles in the way of this utilisation of the extracting power of furnaces. But Dr. Dolan states that Mr. Dutton, the governor of the house, as the result of some experiments, considers that a saving of at least half a ton of coals a week has been effected by the adoption of the system, and that the smoke nuisance has to some extent been prevented. Should the Stott method withstand the test of further experience, it would seem that there would be no difficulty in its application to manufacturing towns where the existence of so many large boilers and high chimneys offers facilities for its adoption.

EXTRACT OF AUSTRALIAN MUTTON.

WE have recently had an opportunity of testing the merits of the extract of Australian meat—mutton exclusively—obtained from Atkins and Co., No. 6, St. Helen's-place, Bishopsgate. Judging from the sample obtained by us, we can confidently recommend it as a valuable, useful, and withal a very palatable preparation. The preparation is contained in tin cases of various sizes, and its wholesale price is, we believe, about 3s. a pound. One ounce of the extract, which is of firm consistence, but not artificially hardened, represents 1 lb. of the fresh meat. It has been tried in various ways: for instance, an ounce of the extract to a pint of boiling water, when flavoured with condiments, makes an excellent mutton tea, which was preferred by those who partook of it to the soup from the extractum carnis, or to freshly prepared beef tea. Flavoured with vegetables, it makes good Julien, or, with vermicelli or pearl barley, a good soup. A very thin layer of the extract, spread on bread and butter, does not make by any means a bad sandwich. Owing to the greater amount of fatty matter which it contains, it is far more palatable than extracts usually are, and as it contains about 8 per cent. of nitrogen, it is very nutritious, and well suited for the use of the sick. In short, our trials with it enable us to speak highly of its value.

Correspondence.

"Audi alteram partem."

IS IT POLITIC TO WITHHOLD THE SOLDIER'S PAY WHEN IN HOSPITAL?

To the Editor of THE LANCET.

SIR,—On the 24th of February Mr. Cardwell brought before the House of Commons the Army Estimates, and, after announcing the satisfactory statement, that the private soldier shall in future be paid a clear shilling a day, is reported to have said: "We make one exception to this rule, which I am sure the committee will agree in thinking to be just to the public and beneficial to the soldier. When it is reported, upon medical authority, that the soldier is in hospital from causes for which his own conduct is responsible, we intend to stop his whole pay, and not merely a portion of it." The moralist, after reading this portion of Mr. Cardwell's financial speech, will probably congratulate himself that in future vice in the soldier shall be punished. I only wish I could believe that the penalty would tend to improve the morals of the service. Those, however, who, like myself, have for many years closely studied the subject cannot fail to have arrived at the conclusion that punishing vice by the withdrawing of the man's pay has been again

and again tried, and proved a failure. Experience teaches us that penalties, instead of deterring a man from exposing himself to the chance of infection, only aggravate the worst consequences of the disease in the individual, cause invaliding in the service, and thereby injure society. In attempting to legislate for the masses our feelings must not warp either our judgment or experience. Observation has taught us that if we punish the soldier when suffering from the various forms of contagious diseases, he will conceal his complaint. Instead of at once applying to the surgeon of the regiment in the early stages (which is most important in these virulent complaints), the man will, from the certainty of losing a shilling a day, and being obliged to submit to confinement in hospital (the latter he considers bad enough), have recourse to the so-called specifics recognised among soldiers, or apply to some itinerant or local quack; and, what is of still more importance to society, will, whilst the treatment is going on, not scruple to have relations with women, and probably communicate these virulent complaints. In this way I have known many of the younger men of a regiment become diseased, if one infected man has been allowed to be at large and intimate with a female who is a public favourite. The object of the introduction of the Contagious Diseases Act has been, not as our opponents assert—the providing of clean women for immoral men,—but to enable us to discover and treat incipient disease in women, sending them at once into hospital, and thus preventing their contaminating healthy men. If Mr. Cardwell should not modify this measure, he will nullify our latest advance in military hygiene. Punishment is not what we require; we should attempt to keep our soldiers as free from disease as possible during the first probationary period after joining the army, and the State will thereby benefit in possessing men of a sound constitution. I trust my professional brethren, particularly those in the army, will urge Mr. Cardwell to withdraw this proposed obnoxious regulation. Let us induce the man to be cured of syphilis as soon as it shows itself; let us further, by all legitimate means, prevent this virulent complaint extending to the wife, and through her to the child. Those who have advocated the Contagious Diseases Acts have had these views at heart; and if I again urge upon those in authority to continue to pay a man a shilling a day, notwithstanding he has morally forfeited it, we shall, I think, avoid a retrograde step, and this letter will not have been written in vain.

I am, Sir, yours obediently,

Queen Anne-street, March, 1873. W. ACTON.

ON FEHLING'S TEST, AND THE SIGNIFICANCE OF SUGAR IN THE URINE.

To the Editor of THE LANCET.

SIR,—Sugar is supposed to exist in urine that decomposes Fehling's solution, and the patient passing such urine is too commonly regarded as a diabetic, and declined by insurance companies.

Now, Dr. Seegen, at the beginning of 1872, in one of the Vienna weekly journals, proved that urea, uric acid, and urates in excess, will decompose Fehling's fluid, and give all the appearances that are usually attributed to sugar; it follows, therefore, that although the decomposition is a fact worthy of the physician's most serious attention, yet it is by no means a certain sign of the presence either of sugar or of diabetes (our only reliable test for sugar, I believe, is fermentation). But let us assume that in a given specimen of urine we do find sugar, and in quantity, are we therefore justified in concluding that we have got hold of a case of diabetes? Most assuredly not, unless we find also thirst, diuresis, emaciation, and the characteristic tongue of the diabetic; if these are wanting, no amount of mere sugar can constitute the case one of diabetes; such a case, however, is often recorded as one of *diabetes cured*, whereas it is not diabetes at all, but mere glycosuria. A gentleman under my care last year, whilst passing sugar to the extent of twenty-one grains per fluid ounce—as I ascertained for myself by careful analysis—looked fresh-coloured and well, kept up his flesh, had no thirst, no diuresis, nor the peculiar glazed and furrowed tongue of the diabetic. He recovered in time, as all such patients do, and all trace of sugar disappeared.

In every case, therefore, in which Fehling's fluid is decomposed, we must ascertain whether this is due to sugar, or to urea and urates; and if to sugar, whether we have before us a case of diabetes, or of mere glycosuria. This is most important in the examination of proposers for life assurance, many of whom are daily declined simply on the ground that sugar is present in their urine. On the other hand, three of our most eminent physicians recently recommended for assurance, at the tabular rate, a gentleman whose urine was very decidedly saccharine; and I should have had no hesitation in recommending my patient already referred to. The fact is, too much importance has hitherto been attached to the mere presence of albumen or of sugar, *per se*, whereas, apart from other clinical facts and the history of the patient, it teaches us extremely little respecting the true nature of the case before us. We know very little, as yet, about the urine. One may say it has never been analysed. What do we mean by "extractives"? Certain constituents about which we are utterly ignorant, and which may, nevertheless, be of vital importance! We know that uric acid assumes a great variety of forms, and it may be that each has its own special and associated states of the general health, although we do not distinguish them. In short, our ignorance surpasses our knowledge of the urine in health and in disease, and a vast field for investigation lies untouched before us.

I am, Sir, yours truly,

DANIEL HOOPER, B.A., M.B.,
Physician to the Surrey Dispensary.

Trinity-square, S.E., Feb. 11th, 1873.

FENESTRATED NON-ADHESIVE PLASTER FOR SKIN-GRAFTING.

To the Editor of THE LANCET.

SIR,—Having frequently experienced the want of a more suitable form of plaster than that in ordinary use for the dressing of ulcerated wounds upon whose surface pieces of healthy skin had been grafted, I was induced, after many experiments, to adopt the following simple but efficacious method of producing a plaster with the requirements I considered necessary.

An oblong or oval opening is cut in the centre of a strip of adhesive plaster, which should be of the requisite breadth and of length sufficient to reach one or two inches beyond the opposite sides of the wound for whose dressing it is intended. This opening or fenestrum is easily made by folding the strip in half, lengthways, and removing a piece from the folded extremity with a pair of scissors. Upon this strip, so fenestrated, a thin strip of gutta-percha tissue of the same breadth, but somewhat shorter, is then laid over its adhesive surface, and made to adhere by means of a little gentle pressure with the warm hand.

In placing this on care should be taken to make it lie evenly, and to extend equally on either side of the fenestrum. Being thus prepared, it is placed over the wound in such a position that the skin-graft will be directly beneath the fenestrum, and seen through it as through a window-pane.

It will be found to possess the following advantages:—

1. The gutta-percha tissue will render the surface of the plaster covered by it perfectly non-adhesive, whilst those portions uncovered at the extremities will readily adhere to the healthy skin.

2. The fenestrum over which the tissue is seen stretched will be found transparent, so that the growth and development of the graft beneath may be viewed from time to time. Although, for all practical purposes, the gutta-percha tissue in ordinary use for surgical dressing will be found a sufficiently transparent medium, still where a more perfect one is required, as for clinical instruction, a thin layer of mica or talc may be substituted. This is a more expensive material, and of no superior advantage for general use.

3. It will be found stouter, and to retain the graft in situ better than the various transparent plasters now used. In addition to this, it is not so liable to draw into a twisted string as the latter almost invariably do.

In conclusion, I may say that if a non-absorbent adhesive plaster could be obtained for the purpose, it would be greatly advantageous, as then it might be allowed to remain on the wound for days without becoming foul. I have not in practice seen such a plaster used, but think it might be easily made by applying the adhesive material over a waterproof fabric instead of on the ordinary calico. Not only in this, but in other departments of surgery would a non-absorbent adhesive plaster be found useful.

Yours faithfully,

JOHN W. BLIGH, M.D. Montreal,
late House-Surgeon, Kidderminster Infirmary.

March 3rd, 1873.

THE LATE MR. ISAAC BAKER BROWN.

To the Editor of THE LANCET.

SIR,—May I trespass once more on your kindness, and be permitted through your journal to inform the subscribers to the "Baker Brown Fund" that it is proposed that Mrs. Brown be permitted to draw from the balance of the fund (£217 17s. 10d.) £2 2s. weekly, for the support of herself and three young children, respectively aged eight, seven, and five, as well as to aid in the maintenance of a crippled daughter of Mr. Brown's by a former wife.

I beg to acknowledge the receipt of a donation of £5 from "An Old Patient," sent, since Mr. Brown's death, by Dr. Nichol of Denmark-hill.

I am, Sir, your obedient servant,

Cavendish-square, March 3rd, 1873. FORBES WINSLOW, M.D.

THE CASE OF MR. CROFT.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me, through the medium of your valuable columns, to tender my sincere and grateful thanks to the gentlemen who so nobly formed themselves into a committee for the purpose of bringing my very painful case before my professional brethren and the public, and raising a fund to enable me to meet the very heavy expenses necessarily incurred by my defence. I cannot express how sensibly I feel indebted to those gentlemen who, with the committee, have so handsomely contributed to assist me in my very great distress.

The case came before the Lord Chief Justice Bovill at the Warwick Assizes last week, and upon his lordship's very lucid explanation of the law relating to medical certificates, in his eloquent charge to the Grand Jury, I am thankful to say that both bills, for felony and misdemeanour, which the prosecution filed against me, were at once ignored.

It is my intention to have a number of copies of his lordship's charge struck off, and shall be pleased to forward one to any of my professional brethren who will apply for one.

Again asking my many kind friends to accept my very grateful thanks through your journal,

I remain, Sir, your very obedient servant,

Saltterfield, March 8th, 1873. THOS. H. W. CROFT.

MEDICAL OFFICERS OF HEALTH AND RURAL SANITARY AUTHORITIES.

To the Editor of THE LANCET.

SIR,—I think you must have been pained to notice some of the advertisements which have been lately put forth by various boards of guardians.

If I remember rightly, it was warmly argued by certain members of the House of Commons during the passage of the Public Health Act last year, that it was unfair to cast a doubt on the capabilities of rural boards for the management of their own sanitary affairs, for those who knew them best were sure they would not be found wanting, but would unanimously rise to the occasion, and wield their new powers with wisdom and discretion. If offering skilled and experienced members of our profession the sum of £200 per annum for superintending an area of nearly 50,000 acres, with a population of over 20,000 (such salary to include all expenses and disbursements), is a step in the right direction, then, indeed, the eyes of the profession must be very widely opened to their own insignificance and want of importance in the public estimation. Such paltry pay as that I have alluded to is positively fixed on a lower scale than that of the long-tried and ill-used union medical officer, who has almost despaired of the good time coming, when he may hope for some alleviation of his lot. I notice that the appointments of medical officers of health "*will be subject to the approval of the Local Government Board.*" If they are asked to approve the man, are they also *asked to approve the salary?* because, if so, I for one sincerely hope they will take a map in their hands, estimate mileage, travelling expenses, and wear and tear of mind and body, and general responsibility, and then see what sort of equivalent is offered by boards of guardians who are virtually taxing themselves.

I remain, Sir, yours truly,

A LOOKER-ON ONLY.

P.S. It is evident that the voices of the magistrates (who are *ex-officio* guardians) are either not raised on behalf of a more liberal policy in framing an organisation for dealing with sanitary questions throughout rural districts, or, if raised, are quickly drowned by their less enlightened and more parsimonious brethren.

PARIS.

(From our own Correspondent.)

AT the last sitting of the Municipal Council, a question of medical interest was brought before the meeting by Dr. Trélat, professor at the School of Medicine and member of the Council. Dr. Trélat presented a report on a demand addressed to the Council by the direction of the Assistance Publique, claiming permission to institute a large laboratory for the purpose of histological investigation at the dissecting amphitheatres of Clamart, which belong to the Administration of the Paris Hospitals. The reporter concluded in favour of the demand, and was supported by all the medical members of the Council (who are very numerous) except Dr. Depaul, who argued that such a laboratory already existed at the School of Medicine. The Council, however, voted the acceptance of the report by a large majority.

It is with great regret I mention the death of Dr. Marchal de Calvi, to whose illness I alluded in my former letter. Dr. Marchal was one of the most brilliant writers in the Paris medical press, and though he was very successful as a physician, and had a large practice, he was always an active contributor to the various journals here, from the time he started the *Annales de Chirurgie* with Velpeau, Bégin, and others, some twenty years ago, almost to the hour of his death, as he was struck by his last attack of illness when returning from the printing office of the *Tribune Médicale*. He was gifted with most varied and brilliant abilities, and was equally remarkable as an orator and as a writer.

Some elections have recently taken place at the Academy of Medicine. Through the death of the secretary, Fréderic Dubois, Dr. Béclard has been appointed to that important post; also, Dr. Moutard-Martin, physician to Beaujon Hospital, has been elected to the seat which was vacant in the section of Pathology.

Amongst the books brought out last week are the following interesting ones:—*De la Névropathie Cérébro-Cardiaque*, by Dr. Krischaber (giving the author's observations on a peculiar kind of nervous disorder, which, according to him, had not been described until now); *Hystérotomie*, by Dr. Péan and M. Urdy (an essay on ablation of the uterus, with an account of Dr. Péan's operations); *Des Ruptures Utérines*, by Dr. Jolly (in which the symptoms and treatment are especially investigated); *Traité de Climatologie Générale du Globe*, by Dr. Armand (an exhaustive treatise by an author of considerable special experience); and last, but assuredly not least, an admirable translation into French of the fifth edition of Dr. John Hughes Bennett's celebrated clinical lectures.

The Municipal Committee entrusted with the question of the Paris water-supply, is now engaged in examining a scheme presented by M. Belgrand, the distin-

gnished engineer, for affording filtered water to the public at all the street fountains. The water furnished by the town of Paris generally contains a certain amount of dust which necessitated the use of a charcoal filter. A trial had been made in the reservoirs of immense layers of gravel, for the purpose of cleansing the water. But they easily got dirty, and, besides, the conducting pipes soiled the water in its passage through. M. Belgrand's plan consists in placing, at every exit of the water, a charcoal filter for intercepting all its impurities. The filter would be changed every two months, and the general public thus provided with drinkable water. The expense of such an undertaking would, according to M. Belgrand, not exceed about 50,000 francs.

There was some rise in the mortality here last week through the prevalence of acute disorders of the chest. The number of deaths through bronchitis, pneumonia, and pleurisy has greatly increased, and occupies a prominent place in the last weekly list published by the municipality.

Through the escape of several prisoners who had been transferred from the prisons to the hospitals, on account of serious illness, the Government has determined to establish a large central infirmary specially intended for prisoners, and to which they will be sent for treatment instead of to the general hospitals as at present.

Paris, March 4th, 1873.

Medical News.

INDIAN MEDICAL SERVICE.—The following is a list of candidates who were successful at the competitive examination held at Burlington House on February 17th for appointments as Assistant-Surgeons:—

	Marks.
Wilkie, D.	2812
Battersby, W. E.	2660
Wall, A. J.	2523
Moodie, R.	2411
Goldsmith, S. J.	2354
Moynan, W. B. E.	2319
Twohy, F. J.	2230
Thomas, A. A.	2216
Mac Donald, D. P.	2117
Baker, O.	1968
Mallins, H.	1950
Wright, F. W.	1899
Robinson, M.	1895
Browne, W. R....	1762
Leapingwell, A.	1710
Dill, J. S.	1690

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Feb. 27th:—

Boulger, Isaac, Gravesend.
Foster, Reginald Henry, Brighton.

As Assistants in Compounding and Dispensing Medicines:—

Cann, Charles John, Hammersmith.
Dyson, Alfred, Elland, Yorkshire.
Jones, Richard Edward, Welshpool.
Rees, Llewellyn Vosper, The Mumbles, Glamorganshire.
Rhodes, Samuel, Oldham.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Beresford Robert Bullen and George Albert Hamerton, St. Thomas's Hospital; Edward Osmond Reynolds, Guy's Hospital; Wm. John Whitten, Dublin School of Medicine.

THE Quekett Microscopical Club will hold a *conversazione* at University College on Friday evening, the 21st March.

DR. D. LLOYD ROBERTS, of Manchester, has been made a Corresponding Member of the Obstetrical Society of Berlin.

THE mortality in Whitechapel last year was lower than ever it has been since the formation of the Local Board of Health.

MR. W. H. SMITH, M.P., presided at the festival held last week at Willis's Rooms, in connexion with the Newsvendors' Benevolent and Provident Institution.

HOSPITAL SUNDAY was for the third time observed on February 23rd, 1873, for the benefit of the Burton-on-Trent Infirmary, when collections were made to the amount of about £300, being a considerable increase over last year.

SIR HENRY RAWLINSON, K.C.B., delivered a lecture on Friday, the 28th ult., at the Royal Institution, on "Livingstone's Recent Discoveries in Central Africa." Sir Henry Holland, Bart., M.D., presided on the occasion.

THE Sanitary Committee of St. George's, Hanover-square, have recommended that no beer be given to an inmate of the workhouse except by the order of the medical officer.

MR. J. P. PURVIS, public vaccinator for Greenwich, has been awarded a grant of £34 11s. by the Local Government Board for the efficient manner in which vaccination is carried on at his station.

HER MAJESTY THE QUEEN has granted £50 to the Royal National Hospital for Consumption located at Ventnor, and in aid of the special fund of £2500 which the General Committee are now endeavouring to raise in sums of £50 each, in order to furnish and maintain five additional houses for patients.

PRESENTATION.—We gladly insert the announcement, from the *Notts Daily Guardian* of the 1st inst., of the presentation to Mr. Wright Allen, surgeon, of Arnold, Notts, of a purse with £105, and a handsome timepiece, as a token of the high esteem in which his professional labours and benevolence are held in the neighbourhood. On the same occasion a purse containing sixteen sovereigns was presented to Mrs. Allen.

ROYAL POLYTECHNIC INSTITUTION.—Prof. Gardner in his instructive lecture on "Fuel—what shall we burn?" describes a new method of utilising coal-dust, or what is known in the Black Country by the euphonious terms of "duff" and "smudge." It is obviously impossible to judge of the value of the process without knowing more about it than can be gained at a popular lecture, but a definite test can of course be easily applied. As soon as we know the cost per ton, the calorific equivalent, the density, and a few other points in regard to the new fuel, we shall be able to judge very accurately of its true value. It appears to be unaffected by damp, for the lecturer exhibits samples of it, which are soaking some in hot and some in cold water.

KING'S COLLEGE HOSPITAL.—The annual meeting of the President, Vice-Presidents, and Governors of this institution was held at the Board-room of the hospital, Portugal-street, last week; General Wilbraham in the chair. It appeared from the report that the number of patients admitted into the hospital during the year ending 31st December, 1872, amounted to 1792, being an increase of 252 over that of the preceding twelve months; 31,818 out-patients received advice and medicine; and 706 cases of midwifery were attended at the patients' own homes. The receipts from subscriptions for the year were £2001; from donations, £4386; from legacies, £1495; and from other sources, £2831; making a total of £10,713. The receipts for the previous year had been as follows:—Subscriptions, £2094; donations, £5781; legacies, £3197; from other sources, £2193; in all, £13,265. During the meeting a fourth donation of £1000 from M. R. O. was reported, and a legacy of £5000 under the will of Mr. T. Holme, of the City-road, and one of £2000 under that of Mr. John Lockwood, of Hanley, Southampton.

Medical Appointments.

ALLAN, J. W., M.B., C.M., has been appointed Resident Medical Officer to the Belford Hospital, Fort William, Inverness-shire, vice Hutchison, appointed a Medical Officer to the Chipping Norton Union.

ARMSTRONG, L., M.R.C.S.E., has been appointed Medical Officer of Health for the Great Ouseburn Rural Sanitary District: £120 per annum.

BROCKLEHURST, T. H., M.R.C.S.E., has been appointed House-Surgeon and Dispenser to the Devonshire Hospital, Buxton, vice Bull, resigned.

CROSSE, T. W., F.R.C.S.E., has been appointed Medical Officer of Health for the Norwich Urban Sanitary District: £200 per annum.

DAVIES, E. P., M.R.C.S.E., has been appointed Medical Officer to the Carmarthen Tin Works, vice Watkins, deceased.

EATON, J., M.D., M.B., C.M., has been appointed Medical Officer to the Montreal Iron Ore Works and to the Threapthwaite Colliery, Whitehaven, also to the Crossfield Iron Ore Company, near Whitehaven, vice Harwood, deceased.

ESTCOURT, C., F.C.S., has been appointed Public Analyst for the City of Manchester.

FRANCIS, A. O., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Markeaton District of the Belper Union, Derbyshire, vice Hoskins, resigned.

GARRETT, J., M.R.C.S.E., has been appointed a House-Surgeon to the London Hospital.

GORNAL, R. G., M.R.C.S.E., has been appointed Medical Officer of Health for the Newton-heath Urban Sanitary District: £50 per annum.

GRIFFIN, R. W. W., M.D., M.R.C.S.E., has been appointed Assistant-Surgeon to the Royal South Hants Infirmary, Southampton, vice Sims, resigned.

HUGHES, J., F.R.C.S.E., has been appointed Medical Officer of Health for the Carmarthen Urban Sanitary District: £80 per annum.

HUNTER, J. G., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Tanfield District of the Lanchester Union, vice Watson, resigned.

NETTLETON, C. D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for District No. 2 of the Bodmin Union, vice Curran, deceased.

OTTLEY, W., M.B., has been appointed Assistant House-Surgeon to the General Hospital, Nottingham, vice Marshall, resigned.

PACKMAN, R. Y. V., M.R.C.S.E., has been appointed Medical Officer for District No. 2 of the Parish of Liverpool, vice Ridley, resigned.

PARKER, R., M.B., B.Sc., F.R.C.S.E., has been appointed Surgical Registrar to University College Hospital, vice Beck, resigned.

PATERSON, J., M.D., has been appointed Medical Officer and Public Vaccinator for the Parish of New Abbey, Kirkcudbrightshire, vice Hunter, resigned.

PEREGRINE, H. L., M.R.C.S.E., has been appointed Registrar and Pathologist to the Victoria Hospital for Sick Children, Queen's-road, Chelsea.

POWER, F. D., M.R.C.S.E., has been appointed Medical Officer to the Cleator Iron Ore Company, near Whitehaven, vice Harwood, deceased.

PRIOR, C. E., M.D., F.R.C.S.E., has been appointed Medical Officer of Health for the Southern Division of the Bedford Rural Sanitary District: £120 per annum.

ROBINSON, M. K., M.D., M.R.C.S.E., has been appointed Medical Officer of Health for the combined Huntingdon, Peterborough, St. Neots, Caxton, and Whittlesey Rural Sanitary Districts, and Huntingdon, Godmanchester, and St. Neots Urban Sanitary District: £300 per annum.

SIMS, W., M.B., M.R.C.S.E., has been appointed a Surgeon to the Royal South Hants Infirmary, Southampton, vice Langstaff, resigned.

STEDMAN, R. S., M.R.C.S.E., has been appointed Medical Officer of Health for the Northern Division of the Bedford Rural Sanitary District: £120 per annum.

TAYLOR, J. W., M.R.C.S.E., has been appointed House-Surgeon and Dispenser to the Tiverton Infirmary and Dispensary, vice George Salt, M.R.C.S.E., resigned from ill-health.

WILLIAMS, J. LL., M.B., has been appointed Medical Officer of Health for the Wrexham Urban Sanitary District: £30 per annum.

VINTRAS, A., M.D., has been appointed Physician to the French Embassy.

WYBRANTS, R. B., L.K.Q.C.P.I., M.R.C.S.E., has been appointed House-Surgeon to the Coventry and Warwickshire Hospital, vice Fenton, resigned.

Births, Marriages, and Deaths.

BIRTHS.

EASTON.—On the 28th ult., at Connaught-square, the wife of John Easton, M.D., of a daughter.

FAGGE.—On the 2nd inst., at St. Thomas-street, the wife of C. Hilton Fagge, M.D., F.R.C.P., of a son.

HOARE.—On the 25th ult., at Clifton House, Aston, Birmingham, the wife of R. R. Hoare, Surgeon, of a son.

KER.—On the 27th ult., at Hadley House, Cheltenham, the wife of Claudius Buchanan Ker, M.D., of a daughter.

MAXWELL.—On the 1st inst., at Stickney, near Boston, Lincolnshire, the wife of P. Maxwell, M.D., of a son.

ORMEROD.—On the 27th ult., at Old Steine, Brighton, the wife of E. L. Ormerod, M.D., of a daughter.

ROBERTS.—On the 4th inst., at Plas Eryr, Carnarvon, the wife of G. W. Roberts, Surgeon, of a son.

THOMSON.—On the 26th ult., at Greenock, the wife of James Thomson, L.F.P. & S. Glas., Surgeon R.N., of a son.

WINSLOW.—On the 1st inst., at Hammersmith, the wife of Dr. Henry F. Winslow, of a son.

MARRIAGES.

ADAMSON—PATTERSON.—On the 27th ult., at the Parish Church, Rathkeale, A. E. Adamson, L.K.Q.C.P.I., M.R.C.S.E., to Isabella, only child of the late Charles Patterson, M.D.

EVANS—JONES.—On the 4th ult., at Christ Church, Bray, Joseph William Evans, M.B., to Maria Georgina, daughter of the late Wm. Jones, Esq.

WESTCOTT—BURNETT.—On the 18th ult., at St. Matthew's, Oakley-square, Dr. Wm. Wynn Westcott, to Eliza, daughter of E. C. Burnett, Esq.

DEATHS.

BENTLEY.—On the 27th ult., at Bernard-street, Russell-square (after a short illness), George Bentley, M.R.C.S.E., late of Halstead, Essex, aged 62.

CARTER.—On the 21st ult., Wm. Carter, M.D., of Richmond-row, Liverpool.

CLARK.—On the 23rd of December last, at Brighton, near Melbourne, Australia, C. Clark, L.K.Q.C.P.I., late of Adelaide-terrace, Notting-hill.

COOKE.—On the 2nd inst., Wm. Cooke, M.D., of Lee-place, Upper Clapton, late of Trinity-square, Tower-hill, aged 87.

DAVIDSON.—On the 2nd inst., at Dick-place, Edinburgh, Dr Geo. Wm. Davidson, Professor of Anatomy at the Veterinary College, Edinburgh.

ELLIS.—On the 1st inst., Cydweiyn Ellis, M.D., of Fitzroy-street, Fitzroy-square, aged 72.

GRAY.—On the 27th ult., at Broadmoor, Wokingham, Alex. R. Gray, M.D., aged 30.

ROBB.—On the 16th ult., Wm. Robb, M.D., of Elgin, aged 74.

SHEA.—On the 25th ult., at Rialto-place, South Circular-road, Dublin, R. F. Shea, L.R.C.P.Ed.

WALSH.—On the 1st inst., A. D. Walsh, M.D., of Cloughjordan, Co. Tipperary, aged 60.

WILKIN.—On the 16th ult., at Wickhambrook, Suffolk, Thomas Wilkin, M.R.C.S.E., late of Sheriff Hutton, Yorks, aged 72.

Notes, Short Comments, and Answers to Correspondents.

THE PUBLIC HEALTH ACT.

WE shall next week give a list of districts and medical officers, with salaries, &c., so far as the returns we have received enable us to do so; and as the appointments are, and will for some time continue to be, numerous, we purpose repeating it, and at intervals during the next two or three months, with additions, until completed.

MEDICAL NOTES OF THE MARANON VALLEY.

DR. FRANCIS L. GALT, in his Medical Notes of the Maranon Valley, which have been appearing in *Hays' American Journal of Medical Science*, mentions as a notorious fact that the pure-blooded Indian perspires very slightly. In proportion as he becomes whitened by cross-breeding, this physical manifestation is more to be remarked. Another fact is that the negro—full blooded—of the Amazon borders has very little of that peculiar and well-marked odour which distinguishes him in America. The negro is also a much more positive character in every respect than the copper-coloured native of this great valley; is able to do more work, does it more intelligently, resists disease better, does not break down by exposure, and is altogether a superior creature. Dr. Galt points out that a difference between the Indian there and the negro is the ability of the former to endure pain in cases of wounds or surgical interference, where the black will, either through fright or sensitiveness, shrink with dread. The rapidity and ease with which wounds on the Indian or other native heal is remarkable; and the stoical indifference with which the red native will have himself sewn up after a fight or a fall is worthy of all admiration. The negro, on the contrary, has his nerves more delicately set, and is a loud complainant about trifles. The offspring of the white and the "Mestizo"—the cross of the white and the Indian—is the breed of inhabitants most common in the eastern parts of Peru, and they are a sprightly, volatile race, indisposed to any continuous system of labour or employment, enjoying their youth, which develops early, and disappearing into old age with apparent content. It is amongst this last class that dirt-eating is more commonly found, especially among the children.

Anti-Humbug.—Will our correspondent have the kindness to forward his name and address with the letter, or a certified copy of it, received by his relative in reply to his application.

Mr. H. B. Blackburn's letter shall shortly be inserted.

REVACCINATION IN SMALL-POX.

To the Editor of THE LANCET.

SIR,—I have observed in the number of your journal for the 1st instant some remarks on revaccination in small-pox after the specific poison has exhibited some of its constitutional symptoms. In the early part of the late epidemic of variola in this city I was very painfully impressed by the sad ravages of this disease; and in turning over in my mind if anything could be done to mitigate its effects in either of its stages, I thought revaccination worthy of a trial, not so much with the idea of lessening the entire attack as with the hope of cutting short the suppurative stage, and thereby saving much constitutional suffering, and lessening the pitting. Accordingly in my first two cases, who happened to be adults, I tried revaccination, and, their cases turning out mild, I thought I had made out something of inestimable value to mankind. My next four cases occurred in one family of children, aged from four years to about ten; a fifth one of this family having died about one week previous to their sickening and my seeing them. I had these four revaccinated at once, and as there was no eruption present in either of these cases, as also in the preceding two, I hoped they, too, would exhibit mild symptoms, and be easily conducted to a safe issue. However, my hopes and exertions were alike futile, as all of these four cases ran a very severe course, I believe in great part due to overcrowding, as they had all to occupy only one small room, and I may say one bed, the mother refusing entirely to allow them to be removed to hospital. The youngest, a very fine little boy of four years, succumbed to his attack in about ten days. In him I expected to have to deal with but a modified attack. In his case the revaccination did not take at all, as also in the other members of his family, who had each a very severe attack. The entire six cases presented good marks on their arms of vaccination in infancy, they being deeply indented. I believe, however, that I observed considerable benefit in lessening the suppurative stage, as also pitting, by the free application to the cutaneous surface of carbolic acid and oil, as also in a case communicated to you some time since (February, 1872), strongly suggestive of the advantage likely to be derivable by the using of some impervious covering.

Of revaccination, allow me to say that out of some 1200 cases revaccinated by me, I only observed one case of variola afterwards, and it was of a particularly mild type, so much so as to be barely recognisable.

I am, Sir, your obedient servant,

JOHN MARTIN,
Belfast, Feb. 24th, 1873. Physician to the Belfast Dispensary.

Mr. C. Nutt, (40, St. George's-place, Bolton, Lancashire.)—If our correspondent did us the honour of reading THE LANCET, he would have been spared the expense of sending us a halfpenny post-card, impeaching us of want of courtesy. Mr. Nutt's paper on Lithotomy was acknowledged in the usual manner in our issue of Feb. 8th, and in the following week (Feb. 15th), in consequence of his anxiety respecting the paper, a special notice was given to the effect that it should receive due consideration.

W. B. H.—The fee for tapping an ascites must vary according to the position of the patient and the operator: from two to ten guineas.

A Victim must consult some respectable medical practitioner.

PROFESSIONAL AMENITIES AT HULL.

A VERY unseemly discussion before the guardians of the Whitby Union is reported. Mr. Taylerson, medical officer of the union, and a practitioner of many years' standing, was required by order to attend a family of six persons with typhus fever. The relieving officer explained that after giving an order for relief he had discovered that the family had £30 in the bank, and therefore discontinued further allowances. The relief being discontinued on sufficient grounds, Mr. Taylerson commenced attendance on the family as a private practitioner. He, at the request of the father, drew out money from the bank, and disbursed it in payment for nurses, food, &c. &c. He did not pay himself, and he accounted quite satisfactorily for the money that he drew. After a time he charged £4 4s. for six weeks' attendance on six people, or at the modest rate of 4d. a day each. He did not press payment of this for twelve months. Dr. Mead, once a pupil of Mr. Taylerson, has recently made a complaint to the Board that Mr. Taylerson, after being called to attend this family—his patients—as a parish medical officer, went on attending them as private patients. Mr. Taylerson's explanations were quite satisfactory to the Board, and are so to us. It is unreasonable to expect a parish doctor to continue attendance on people, formerly his own patients, who have been judged by the parish authorities unfit recipients of parish relief. And it is unseemly that in charging very moderately, and waiting patiently for payment, an old pupil should come forward and condemn him.

Mr. Gilbert Wood.—We need scarcely say that the "whisky cure" of snake-bite is perfectly worthless. If our correspondent will take the trouble to peruse the very extensive series of observations and experiments by Professor Fayrer on the poison of the cobra and rattlesnake, he will find that none of the many so-called antidotes have been of any use.

Dr. Gossett Brown's paper shall be published.

A Constant Reader.—Either of the books mentioned would suit our correspondent.

OBSTRUCTION OF THE BOWELS.

To the Editor of THE LANCET.

SIR,—In reply to Dr. Hewan's inquiry, as solicited by him in your issue of the 1st inst., I beg to state that to the combination of the two drugs, acetate of lead and extract of belladonna, do I attribute the success in a recent case of obstructed bowel. The dose administered consisted of half a grain of acetate of lead and a quarter of a grain of extract of belladonna at intervals of about two hours. After the third dose there was appreciable relief of pain and distension, and the fifth dose was followed by a most effectual and copious action, when the remedy was suspended. The obstruction was one of eight days' duration, during which time, as I was informed, all the usual remedies in such cases had been tried without avail. I have since seen the patient, and learn that there has been no omission of that function since. It now remains for me to state that all the credit is due to Dr. Thorowgood, whose paper on the subject of Obstructed Bowel at a previous meeting of the Medical Society of London I had the pleasure and good fortune of hearing.

I remain, Sir, yours obliged,
T. HARVEY HILL.

Stanhope-terrace, Hyde-park-gardens, March 6th, 1873.

THE LATE DR. THOMSON, OF LEAMINGTON.

Dr. W. H. Parsey writes to us as follows: "Will you allow me to correct an error in your obituary notice of my late valued friend, Dr. Thomas Thomson, of Leamington. He never had any official connexion with the Warwick County Lunatic Asylum, which has been under my professional control since it was opened more than twenty years ago, nor is there any such office as 'medical visitor' attached to it. He was 'medical visitor' of the private lunatic asylums of the county, his duties consisting in accompanying the magistrates, appointed in Quarter Sessions for the purpose, in their quarterly visits of inspection to private asylums."

T. J. D.—They are eligible, and the Local Government Board is not unfavourable to their being appointed; on the contrary, rather favourable.

A Provincial Student had far better join a gymnasium, taking care, however, not to overtax his strength by the exercises.

P. M.—They are exactly in the same position.

HOUSE-SURGEONS AND PRIVATE PRACTICE.

To the Editor of THE LANCET.

SIR,—I write to ask that some of your readers would much oblige me if they would, through the medium of your columns, give me the names of some county or general hospitals where a rule exists prohibiting the house-surgeons from entering on private practice in the town where the hospital is situated, for any period after their retirement from office.

Yours truly,
Feb. 25th, 1873. ENQUIRER.

Mr. Alfred Ginders' conduct towards the gentleman named in his letter seems to have been dignified and strictly professional. The letter itself would have been a better one if it had not contained so many strong adjectives. A letter asking for explanation should not show prejudgment. If very strong adjectives are ever justifiable, it is after an unsatisfactory explanation has been obtained.

THE letter of *Un Militaire* shall appear next week.

Intending Candidate, (Ireland.)—We do not think that the question of age would disqualify him; but a communication addressed to the Director-General, 6, Whitehall-yard, would at once procure the necessary information.

J. O'R.—We do not answer such questions. Our correspondent should consult his own medical adviser.

Dr. R. J. Lupton.—The matter is one for friendly arrangement with the medical officer.

An Old Subscriber.—Certainly so.

THE IRRIGATION SYSTEM.

WE have received a copy of a tabular statement drawn up by Dr. Angus Macintosh, of Callington, in which he has succeeded in conveying a good deal of practical information within a very small compass. The design of Dr. Macintosh's table is excellent. It sets forth the facts, with the results of the irrigation system, as practised on nine British sewage farms, showing the size of the farm, the population, the daily amount of sewage, the process adopted, with the sanitary and financial results. Another part of the same document gives the quantities of different disinfectants required to deodorise sewage, with the relative price and uses of the different agents; and, lastly, a list of the substances proposed to be used for the disinfection of sewage. We have not verified the different items, but have been content to rely upon Dr. Macintosh's accuracy. Knowledge of this kind is very useful for those who have to express an opinion on questions affecting public sanitation.

Machaon.—Nutritiveness is too complicated a question to be so easily pronounced upon.

"DOCTORS" BY PURCHASE.

Too much publicity cannot be given to such advertisements as the following:—

"A gentleman of distinction and position assists parties connected with the medical profession in obtaining the honourable and important degree of LL.D., which gives the holder the title of Doctor as used in the medical journals, and obtained *in absentia*. Good references required. Terms three guineas.—Apply, LL.D., 2, Latimer-road, S.E. N.B. Gentlemen assisted in preparing the necessary pamphlet."

"For sale, several LL.D. degrees, suitable for medical men. Price £2 each.—Apply, M.A., 4, St. Mary's-terrace, Birmingham."

Really the craving to be dubbed "doctor" assumes the form of a mania, and deserves a place in medico-psychological classification. Who are the weaklings, we wonder, whose vanity impels them to bite at such baits as the above? Surely, no man of liberal education and sense of honour, or even humour! What University, we may further ask, prostitutes itself in the sale of degrees? Some years ago there was a "Clinton College, Arkansas," which drove a thriving trade in that line, and duped a number of persons here into purchasing at the price of £10 a head the title of "doctor." On the exposure of this piece of "smartness," veiled as it was under a real diploma couched in very fair Latin, some of the honorary graduates" refused to part with their degree, even when it was shown by the *Athenæum* that "Clinton College, Arkansas," was a myth. There ought to be a register for every doctorate, theological and legal, as well as medical, so as to supply the public with the means of testing at what University the D.D. or LL.D. has received his education, or had his merits recognised.

A CASE OF DISTRESS.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to appeal to the benevolence of my professional brethren through your periodical. A widow lady, the daughter of a medical man who has been dead several years, has been struggling for six years to support herself and two children, but with indifferent success from delicate health. At the present time, from the high price of provisions, fuel, &c., she is in great penury; and in a piteous letter asks me, as an old pupil of her father, to help her in some way. By this appeal to your readers I seek to do so, and will head a subscription by giving £1 1s. If you, Mr. Editor, will kindly receive any further subscriptions, I shall be glad to forward them to the lady; or they can be sent direct from your Office, and I will furnish her address to you when needed.

An early response to this urgent case of distress is desirable.

I am, Sir, yours obediently,
WILLIAM DALE, M.D. Lond., &c.

12, Princess-square, Plymouth, March 5th, 1873.

Reform.—Our correspondent is thanked for his observations and criticism; but he must wait, like ourselves, until the details are furnished. If he will turn, however, to another column at the same part of the Army Estimates, he will find an estimate for additional pay for all ranks, and this supplies an answer to his first question. We presume the senior medical officer will have control over all the medical officers within the area under his superintendence, and that he will be able so to distribute them as to admit of leave being obtained. As regards earlier retirement, we concur with our correspondent in wishing that it could be procured; but Mr. Cardwell is understood to be desirous of reducing the effective list, and to be quite opposed to any extension of the ineffective list. Under such circumstances, the most prudent course seems to us to be that which secures the best attainable. It must not be forgotten that a statesman and a medical officer view the subject from different stand-points, and that the former has to justify his course in Parliament and before his constituency.

Mr. Langford's letter shall appear.

A Militia Surgeon will see that we did not omit to notice these claims.

PRURITUS ANI.

To the Editor of THE LANCET.

SIR,—At the end of Mr. Heath's lecture on Diseases of the Rectum, which I had the pleasure of reading in your issue of the 22nd ult., he says that "the universal experience is that pruritus (ani) is most difficult to treat, and you may give every variety of sedative lotion or ointment without giving your patient much relief." I have found so much satisfaction in prescribing for pruritus a weak solution of carbolic acid (1 in 96 or 100) that I hasten to suggest this as a most valuable addition to our stock of remedies for this troublesome complaint. There is no application I know of so instantly beneficial in relieving the itching soreness which affects some persons after an evacuation.

Yours, &c.,
Bradford, March 5th, 1873. W. B.

DENGUE FEVER.

Dr. W. Burke Ryan, of Bayswater, has been kind enough to forward us a copy of the interesting *brochure* by Mr. José Gerson Da Cunha, of Bombay, giving a graphic description of the epidemic of dengue which prevailed in Bombay during the years 1871-72. From this we learn that albuminuria and dropsy, so often consequent upon scarlet fever, were absent in the cases described by Mr. Da Cunha. A previous attack of scarlatina, moreover, affords no protection against dengue.

THE communication of *Dr. Balbirnie* arrived too late for insertion in our present number. It shall appear in our next.

DISLOCATION OF THE THUMB.—POISONING BY CARBOLIC ACID.

To the Editor of THE LANCET.

SIR,—Having seen in your journal of last week a case of this very troublesome dislocation reported by Dr. Taaffe, I beg to state that in one case I succeeded in effecting reduction by bending the dislocated bone forcibly backwards towards the dorsum of the hand, and at the same time pushing the edge of the dislocated surface forwards with my thumb until it slipped into its natural position. By this means reduction was effected with comparative ease, after extension with the clove hitch had failed.

In one instance of poisoning by carbolic acid, which came under my treatment, a child of two years of age, who was completely comatose when I saw him, consciousness was completely restored by the injection of a strong infusion of green tea into the stomach, after it had been well washed out by the stomach-pump. Dyspnœa afterwards supervened, and the child died.

I am, Sir, yours truly,

Rotherham, March 4th, 1873. WM. OXLEY, M.R.C.S.

Mr. A. R. Verity.—1. Parkes's Practical Hygiene (Churchill).—2. Wilson's Handbook of Hygiene (Churchill).—3. Report of the Medical Department of the Local Government Board on Certain Means of Preventing Excrement Nuisances in Towns and Villages (on application to the Medical Department); Suggestions as to Main Sewage, Drainage, and Water-supply, published by the Local Government Board (on application to the Board).

MUCH delay having repeatedly arisen from letters of a purely business character being superscribed "To the Editor of THE LANCET," we have to request that communications intended for the Publishing or Advertisement departments may in future be addressed to the Publisher.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. Thompson, London; Dr. Forbes Winslow, London; Dr. Buzzard, London; Mr. Fry, York Town, Surrey; Mr. Brooks, Henley-on-Thames; Mr. Henry Hayman, Stokenchurch; Dr. Woodhouse, Reading; Mr. Whitehead, Manchester; Mr. Baylis, Birkenhead; Mr. Holderness, Huntingdon; Mr. W. Morton, Southampton; Dr. Adams, Barnes; Mr. Benson, Oldham; Mr. Fenwick, Worksop; Mr. Watts, London; Mr. Ginders, Normanton; Mr. Webber, London; Mr. Wilders, Birmingham; Mr. Morley, Burton; Mr. Furley, Edinburgh; Mr. Clements, London; Mr. Boyce, London; Mr. Sharman, Foxton; Mr. Elliott, London; Mr. Jackson, Caterham; Rev. H. Croskery, Jamaica; Mr. Horsell, London; Mr. Boyd, Stockport; Mr. Quicke, Truro; Mr. A. R. Verity, Pontypool; Dr. Davies, Jamaica; Dr. M'Creery, Fermoy; Dr. Walker, Hanley; Dr. M'Ewan, Dundee; Mr. Adamson, Rathkeale; Mr. Wickham, London; Mr. Allard, Tewkesbury; Dr. L. Roberts, Manchester; Messrs. Thorne, Whitby; Mr. Logan, Stamford; Mr. R. Minors, Weston; Mr. Stone, Ware; Mr. Wilkin, Wickham-brook; Mr. W. Harley, Bexhill; Mr. Hanfield, Portsea; Dr. Mackintosh, Southsea; Mr. Lampton; Mr. Lupton, Liverpool; Mr. Natt, Bolton-le-Moors; Mr. W. Maclehose, Edinburgh; Mrs. Brown, Gosmore; Dr. Savill, East Retford; Dr. Parsey, Hatton; Mr. Lawson Tait, Birmingham; Mr. Greenwell, Leek; Dr. Fox, Scarborough; Mr. Ringham, Nottingham; Dr. Thompson, Leamington; Mr. Weston, Burnley; Mr. Wainwright, Liverpool; Dr. Little, London; Dr. Kinloch, Charleston, U.S.; Mr. Craven, Hungerford; Mr. J. Grayling, London; Mr. Gale, Cambridge; Mr. Warren, London; Mr. Jenks, Oundle; Mr. Biggs, Salisbury; Mr. Lloyd, Burton-on-Trent; Mr. Acton, March; Dr. Bottle, Birmingham; Mr. Bell, London; Dr. Wyllie, Scarborough; Mrs. Brown, Hitchin; Mr. Clay, London; Mr. Curtis, Tenby; Mr. Short, Chatteris; Mr. Munyard, Lancing; Mr. Thorpe, Aylesbury; Mr. Graham, Wallingford; Mr. Oxley, Rotherham; Mr. Griffith, Belfast; Mr. Walford, Bedford; Mr. Crofts, Snitterfield; Mr. Tucker, London; Mr. Cutbush, Leeds; Mr. J. Whitford, Douglas; Mr. Stevens, Richmond; Mr. James, Snitterfield; Dr. Briggs, Jersey; Mr. Bennett, London; Dr. Dale, Plymouth; Messrs. Weiss and Son, London; Mr. Burroughs, Shrewsbury; Mr. Chater, Rugby; Dr. Balbirnie, Sheffield; Mr. H. J. Brown, London; Dr. Blaxall, London; Mr. W. Irland, Oakham; Mr. Minter, Dartford; Mr. Poole, London; Dr. Gosset Brown, Hampstead; Mr. Churton, Coventry; Mr. Garrett, London; Mr. Pooley, Cambridge; Mr. Blackburn, Warrington; Mr. Coates, Ely; Mr. Langford, Southwell; Dr. Maxwell, Boston; Mr. Roberts, Carnarvon; Mr. Forder, Darlington; Mr. Keene, Malmesbury; Mr. Coltmann, London; Mr. J. Raymond; Dr. Watson, Wortley; Dr. Farley, Loughborough; Dr. Stutter, Sydenham; Mr. Hill, London; Messrs. Potter and Brown, Rotherham; Dr. Maclagan, Dundee; W. B.; The President of the Quekett Microscopical Club; Un Militaire; T. J. D.; A Victim; W. B. H.; Anti-Humbug; The Military Secretary, India Office; Reporter; A. T.; A Pensioned Non-commissioned Officer; Subscriber; A Militia Surgeon; P. M.; T. H. H., York; A Constant Reader; Calpho; Candidatus; B. D. G.; A Provincial Surgeon; Medicus; &c. &c.

Mansfield Reporter, Cork Daily Herald, Southport Visitor, Whitby Gazette, Colonial Standard (Jamaica), *El Anfiteatro Anatómico Español, Manchester Evening News, Whitby Times, Royal Leamington Spa Courier, Evening Express, Bulletin de l'Académie de Médecine*, and *South London Press* have been received.

Medical Diary of the Week.

Monday, March 10.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Flower, "On the Osteology and Dentition of Extinct Mammalia."
MEDICAL SOCIETY OF LONDON.—8 P.M. Address by the President, Dr. S. O. Habershon.—Dr. Tilbury Fox, "On Acne."

Tuesday, March 11.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Dr. John Murray, "On three Cases of an unusual form of Connective Tissue Hypertrophy in Children."—Mr. George Pollock: "Report of a Case of Molluscum Fibrosum, or Fibroma," with Observations.

Wednesday, March 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
CANCER HOSPITAL.—Operations, 3 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Flower, "On the Osteology and Dentition of Extinct Mammalia."
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Robert Liveing, "On Elephantiasis Græcorum."
EPIDEMIOLOGICAL SOCIETY.—8 P.M. Dr. Smart, "On Cholera in Insular Positions."

Thursday, March 13.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Vernon Harcourt, "On the Chemistry of Coal and its Products."

Friday, March 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Flower, "On the Osteology and Dentition of Extinct Mammalia."
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Robert Liveing, "On Elephantiasis Græcorum."
QUEKETT MICROSCOPICAL CLUB.—8 P.M.
CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. Barwell, "On a Case of Foreign Body impacted in the Bronchus."—Mr. Christopher Heath, "On a Case of Recto-Vesical Fistula in the Female successfully treated by Operation."—Dr. John Ogle, "On a Case of Acute Rheumatic Fever, Pericarditis, and Pleurisy; expected necessity for Tapping the Pericardium."

Saturday, March 15.

HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

By Appointment.

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HOT-AIR AND VAPOUR LAMP.

Temperature attained, as a vapour bath, in ten minutes: with thick flannel cloak, 120°; with mackintosh ditto, 130°. Temperature attained, as a hot-air bath, in ten minutes: with flannel cloak, 160°; with mackintosh ditto, 170° to 180°. The above temperatures may be sustained for forty-five minutes. The lamp is very portable, burns methylated spirits, and is without trouble or difficulty in preparation; it may be used with an ordinary bedroom chair. Each bath costs about 3d. Three kinds of cloaks are provided: 1st, a mackintosh cloak, lined with flannel, with sleeves in front; 2nd, a mackintosh cloak alone; 3rd, a double flannel cloak; 4th, a single flannel cloak. The 1st and 4th are most usually used. Special covers are adapted to the lamp for hot air when calomel, iodine or sulphur is to be used. Chairs and bed-cradles provided especially for the use of the lamp by invalids. Price-list forwarded.

IMPROVED TONSIL GUILLOTINE.

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This instrument has metal guards passing from the two finger-rings to near the circular blade. Their use is to prevent the patient closing his mouth while the tonsil is being transfixed by the barbed spear, or during the excision of the tonsil, thus obviating the necessity of a separate gag, and rendering the operation less difficult.

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Suitable for the use of Physicians, Hospitals, Asylums, Prisons, Insurance Offices, Workhouses, and other Institutions. Price £5 5s. and £7 7s.

Inventor, Patentee, and Sole Maker, HAWKSLEY, 4, Blenheim-st., Bond-st., London, W.

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No. 1 shows J. Alderman's Patent Graduating Elastic Spinal and General Invalid Couch, which is fitted up with two, three, or four distinct graduating sections, so that an invalid can be adjusted imperceptibly to any position without being touched by the nurse, and free from all pressure, that being avoided by his Elastic Ventilating Mattress and his Patent Elastic Adjusting Foundation, so that a patient cannot become bedsore by long confinement. They are also fitted with a Closet arrangement if required.

No. 5 is J. A.'s Patent Graduating Elastic Self-Adjusting Invalid Chair. This Chair, like the Couch, is made to follow nature in every respect, as the back, the arms, the seat, and the leg-rest are made to work at the same time, so that not a muscle of the patient need be disturbed. The arms are also made to put on and off in an instant, so that the patient may get on and off from either side while the leg-rest is out.

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No. 11 is J. A.'s improved Three-wheel Albert Chair, with a Hood. It is elegant and easy.

The following gratifying Letter has been received by MR. ALDERMAN *from* GENERAL GARIBALDI.

"Caprera, August 20th, 1863.

"MR. ALDERMAN,—Some time ago I addressed to you a few words of thanks for your magnificent bed, which has been so great a comfort to me during my illness. Now I hear with regret that my letter has miscarried, and I willingly come forward again to express my gratitude to you. You have alleviated half my sufferings. My affectionate thankfulness will accompany you eternally. Accept a grasp of the hand from yours ever,

"G. GARIBALDI." (Copy.)

Same as supplied to General Garibaldi.

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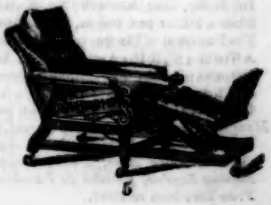
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